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ART. I.—A CASE OF TRAUMATIC TETANUS CURED BY THE REMOVAL OF A PIECE OF GLASS, WHICH HAD BEEN IMBEDDED IN THE ARCH OF THE FOOT FOR TWO YEARS AND SEVEN MONTHS.

BY DR. C. HIXSON, OF HARRISONVILLE, IND.

ON the 8th of May, 1853, I was called to see Mrs. W——, who was laboring under tetanic convulsions of most alarming severity. The jaws were firmly set, the muscles of the extremities rigid, and the dorsal muscles in a most extreme degree of constriction, alternating with complete relaxation. Upon inquiry I found that she had been in this condition for about ten hours, but had been the subject of slight convulsions for several days previous. My attention was directed to her right foot, which I found to be enormously swollen, and on questioning her husband, learned, that a little over two years and a half before, while bare-footed, she had trodden upon a piece of window-glass, which entered the outside of the arch of the foot, near the cuneo-cuboid articulation, taking a direction upward and inward. A portion of glass was removed at the time of the accident, which was supposed to be all, as the wound readily healed.

Nothing more was thought of the matter, as she suffered no annoyance from it, till some months after her removal to this state. Being a woman of stout constitution, she wore no shoes during a great portion of her time, but upon wearing, for a few

days, a pair of shoes smaller than ordinary, she began to complain of a pricking sensation in the sole of the foot, which continued to increase in severity until she was brought to the condition which I have previously described.

I immediately administered chloroform to the extent of producing complete insensibility, and proceeded to a minute examination of the foot. My diagnosis was, that there remained a spiculum of glass in the foot, which had become encysted, and which, upon the occasion of the foot being compressed by a shoe too small for it, had ruptured the sack in which it was enclosed, and had now produced the irritation which I witnessed. I determined at once to make an incision into the arch of the foot, and ascertain if such were not the case. I accordingly made an incision, commencing a little below and forward of the articulation of the calcaneum and astragalus, which I continued for about an inch and a half in depth, when the knife struck some hard substance. I then with a small pair of forceps removed a piece of glass measuring an inch and a quarter in length by half an inch in width at the base.

Nothing afforded me greater satisfaction than the feeling of comfort which my patient expressed upon her return to consciousness, after the removal of the foreign body, thus verifying the correctness of my diagnosis, that the tetanic condition was produced and kept up by a foreign body remaining imbedded in the foot. With a probe I now ascertained that there was nothing more remaining to keep up the irritation, the spasms ceased, my patient's system became completely relaxed, and after injecting a small quantity of tincture of opium into the incision and exhibiting a half grain of sulph. morphia, I left her comfortable. The spasms have never returned, the swelling soon disappeared, and she has ever since enjoyed excellent health.

This case is particularly remarkable for the fact that a foreign body shaped like this, should remain so long (two years and seven months nearly) in a part organized like the foot, without creating irritation, or working its way out.

Had the foot not been unusually compressed, it might have remained there during life, without ever having been known, even to the woman herself.

Sept. 1854.

ART. II.—FOREIGN CORRESPONDENCE.

BY AUSTIN FLINT, M. D., PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF LOUISVILLE.

DEAR DOCTOR:—

I have already intimated an intention of giving you some account of the St. Louis Hospital. I propose to do so in this letter. This is one of the largest, and oldest of the Parisian hospitals. It was founded by HENRY IV, in 1607, on the site of an alms-house which had existed from a remote period. The prevalence of an epidemic disease called the plague, supposed to be contagious, gave rise to the establishment of this hospital. Owing to the great accumulation of cases in the wards of Hôtel Dieu, patients were placed in the same bed to the number of four, and sometimes even six. The mortality was frightful, and, growing out of the urgent necessity for more accomodations for the relief of the sick, the St. Louis Hospital was commenced, and completed in four years. The name is said to have been given to it in consequence of ST. LOUIS having died, in 1270, with the epidemic disease which prevailed at the time of its construction.

It is situated in the faubourg St. Martin, in the north-eastern part of the city, near the barrier, on the *Rue Bichat*, so called in honor of the founder of the science of general anatomy. Numerous streets in Paris bear the names of those who have been distinguished in medical science. There are the *Rue Dupuytren*, *Rue Larrey*, *Rue Richerand*, etc. Has this slight tribute of respect ever been paid to the memory of an American physician or surgeon?

The edifice originally erected by HENRY IV, still remains, but large additions have been made from time to time; and a new commodious building is just finished. The wards are large and well ventilated, and within the extensive area encircled by a high wall are spacious courts and gardens ornamented with trees and shrubbery.

A separate building is allotted to pay patients, who are charged two francs per day. Patients received gratuitously, affected with

diseases which do not altogether compromise their ability to labor, are encouraged to work in the gardens by a premium of one sou for every hour they are thus employed.

The establishment has a large washhouse, and extensive arrangements for baths of which I shall presently give some account.

The sick are nursed by twenty-five sisters of charity of the order of the *Dames de St. Augustin*, who reside in a house contiguous to the walls of the hospital.

Gas for lighting the hospital is manufactured in the vicinity, and here was the first gas apparatus established in Paris.

The St. Louis Hospital is appropriated chiefly to the treatment of diseases of the skin. It is one of the special hospitals. A few patients, however, with other diseases are received, and cases of accidents and surgical affections, occurring in that part of the city in which it is situated, are sent there. The surgical service, for the most part consisting of cases thus derived, is large. During the year 1850 there were admitted 5124 medical, and 2528 surgical patients. Of the former, 136, and of the latter, 189 died. The whole hospital contains 853 beds, and the average number of inmates is from five to six hundred.

During my residence at Paris I have devoted two afternoons weekly to the study of the cases of cutaneous disease at this hospital. The opportunities for clinical observations pertaining to that class of maladies, as would be inferred from the facts already stated, are excellent. Cases illustrative of similar forms of disease are presented in groups, so that the different subdivisions of each class, as well as the different classes of the *cutanei* may be at once compared, without the necessity of waiting for examples to offer themselves at disconnected epochs, as in general hospitals, and still more in private practice. The great advantage of this in acquiring, practically, familiarity with the external characters upon which are based the divisions into order, genera, species and varieties, and verifying the principles of diagnosis, as well as observing the effects of remedies, are sufficiently obvious. The clinical facilities for which Paris is celebrated, consist mainly in its special hospitals; and, among the latter, that of St. Louis claims particularly the attention of those who visit the French metropolis for medical improvement, inasmuch as institutions devoted to

cutaneous affections are rare even in large cities. London, which is double the size of Paris, has no extensive skin hospital. The importance of one is, however, beginning to be felt in that city, and a small institution for this class of diseases, as I was informed, has recently been established. It is doubtless owing in a great measure to the want of the facilities afforded by hospitals appropriated to this purpose, that the study of diseases of the skin is so generally neglected by medical practitioners.

The medical staff at St. Louis consists of M. M. CAZENAVE, DEVERGIE, GIBERT, BAZIN, and HARDY. All these names are conspicuously associated in the modern literature of cutaneous affections.

The work by CAZENAVE and SCHEDEL, entitled *Abrégé Pratique des Maladies de la Peau*, has long been a standard treatise, the first edition having been published in 1828. It has passed through several editions, and an English translation, with notes by Dr. BULKLEY, of New York, was issued in this country two or three years ago. An elementary treatise professedly based on the theoretical and clinical teachings of M. CAZENAVE, has appeared quite recently in Paris from the pen of Dr. CHAUSIT. A course of clinical lectures by M. CAZENAVE was delivered during the past summer, which was well attended. His service is more numerously followed than that of either of his colleagues, and he appears to be esteemed as the highest authority in Paris on all that pertains to his department. In some respects, however, he shows a disposition to adhere to the past with an obstinacy which prevents him from appreciating the evidence in favor of newly developed facts. He contends strenuously against the reality of the discovery of *cryptogamous* productions in certain of the eruptions peculiar to the face and scalp. He repudiates in toto, the results of the microscopical observations of BAZIN, ROBIN, and others, insisting that they are mistaken—that their conclusions are due to the fallacies incident to the use of the microscope. In this course he is sustained by few of those who, in general, place confidence in his opinions.*

* M. CAZENAVE has in process of publication a magnificent series of plates illustrative of skin diseases. About half the series are already issued. They are accompanied by text descriptive of the affections figured.

M. DEVERGIE, has long been one of the attending physicians at St. Louis, having been the successor of BIETT. He gives clinical lectures, and his service is respectably attended. He has, during the present year, published a treatise entitled *Traité Pratique des Máladies de la Peau*, in which he dissents, in several particulars, from views inculcated in the work by CAZENAVE and SCHEDEL. M. DEVERGIE observes for himself, and is an independent thinker. His appearance and deportment in his wards are well calculated to inspire confidence in his honesty and judgment. My visits at the hospital were oftener in his wards than in those of CAZENAVE, and after a careful perusal of his work, I am disposed to think that it will prove a valuable addition to the literature of this department of practical medicine.

M. BAZIN has rendered valuable service in pathological investigations pertaining to skin diseases by his researches on the nature and treatment of the forms of eruption characterized by the presence of cryptogamous plants. He classes all the affections thus characterized under the head of *teignes*. He published a small treatise on the subject in 1853. He is also distinguished for having introduced into the practice at St. Louis Hospital a more expeditious mode of curing *scabies* than had previously been employed. This method I shall describe presently.

M. HARDY, at the present time, has charge of the itch department of the hospital, and has improved the method of effecting rapid cures introduced by M. BAZIN to which I have just alluded.

The method of treating scabies, the introduction of which at St. Louis is due to M. BAZIN, consisted in first employing baths, and forcible friction with soap, in order to cleanse the skin, and rupture the vesicles; afterward, friction three times daily, for two successive days, were made with the *Pommade d'Helmerick*, which is composed of sulphur, the carbonate of potash and lard.* The latter frictions ended, another bath, with soap, was employed, and the patients were discharged cured in three days.

The plan at present pursued, as perfected by M. HARDY, is as follows:—

The patients first apply, with friction, *savon noir* (soft soap) and

* Carbonate of potash, one part; sulphur, two parts; lard, eight parts, (by weight).

take a warm bath, which occupy an hour. Next they continue friction with the *pommade* of sulphur and carbonate of potash for half an hour. An alkaline bath comes next in order, lasting half an hour. The whole process consumes two hours, and they are at once discharged cured. They are, however, requested to return at the next day appointed for external consultation for cases of this description, in order to be examined, and if the cure be not complete, the process is repeated. I was assured that five of every six cases are effectually cured by one process. Other eruptions, however, eczema, impetigo, and lichen, succeed in a considerable proportion of cases.

The exhibition of the application of this method of cure to a large number of cases collectively, is one of the medical curiosities of Paris, which should not be overlooked more than the operations with the hot irons by JOBERT. Two days in the week are designated for persons to apply for treatment. At the time I was present, there were from thirty to forty candidates. Sufficient accomodations were provided for the whole number to bathe simultaneously. After the bathing, they were marched into a room by an official in uniform, who described to them the details of the stage of the process which was next to take place. On the floor was a large *tumulus* of the *pommade*. They were directed to take, each a certain quantity, and to rub all the accessible parts of the body, using forcible friction; they were to apply the *pommade* to the back for each other; the frictions were to be continued for half an hour. The comical exhibition of from thirty to forty naked persons carrying into active execution the foregoing instructions, can be better imagined than described. A few of the patients were children too young to make the applications for themselves. In these cases the duty was performed by assistants. The children gave evidence of the severity of the frictions by loud lamentations, and some of the men were unable to sustain the smarting with perfect stoicism. The half hour expired, an alkaline bath followed, and the process was finished.

This treatment is based on the doctrine that the disease is dependent on the presence of the living *acarus*. The object is to uncover the insect, force it from the burrow, and destroy it by means of the sulphur, alkali and lard, and, also, the germs of a

future offspring. This doctrine, however, is not accredited by all. M. DEVERGIE, for example, regards the production of the *acarus* as merely incidental to the progress of the disease, not the efficient cause of the disease. He would account for the cure by the measures just described, not solely because the acarus is destroyed, but from the medicinal efficacy of the remedies employed, irrespective of this effect. In his opinion the measures are needlessly active and rough; and injudicious in consequence of the subsequent eruptions to which they frequently give rise.

The history of the discovery of the existence of the *acarus scabii* is connected with a curious imposition practiced at St. Louis. An Arabian physician first noticed the presence of an insect in connection with the itch-vesicles, but the fact excited little or no attention, and was almost forgotten until the sixteenth century, when it was described by HAUPTMANN. It was described more fully by CESTONI in 1687. ALIBERT and BIETT, however, the distinguished physicians at St. Louis, failing to verify its presence, were led to deny the fact of its existence. The opinion of these writers was regarded as such high authority, that, in France, the co-existence of an insect with scabies was generally either distrusted, or disbelieved; when a person named Galès (a name singularly resembling that of the disease in French, viz: *gale*) professed to demonstrate the fact of its presence, by adroitly producing the *mites* from cheese which he pretended were extracted from the itch-vesicles. He practiced the fraud with such success, that the Academy of Medicine, having appointed a commission to examine the subject, and witness the process of extraction, were completely deceived, and distinguished honors were conferred on M. Galès. The subsequent discovery of the imposition tended to render the existence of the true *acarus* more doubted than before, but at length, the fact was established beyond farther question by M. RENUCCI, M. ALBIN GRAS, and M. RASPAIL in 1834–5, and M. BOURGUIGNON in 1843.*

I witnessed the extraction of several *acari* by M. FREMINEAU, a young physician of great promise, one of the *internes* at St. Louis. Vesicles were selected which were recent, and presented a well marked furrow. Introducing the needle at the extremity of the

* These statements are quoted from the work by M. DEVERGIE.

furrow and withdrawing it, a small opaque body was apparent on the end of the needle, which, placed on paper, gave evidence of animation to the naked eye, but more clearly with a common pocket magnifying glass. Dr. WILSON states that the animal seizes hold of the needle, and is thus brought out. This may be doubted. The cuticle at the end of the furrow being gently raised, if the *acarus* be there, it forms a free body in so small a space, that it is easily, as it were, *scooped up* with the instrument. M. FREMINEAU easily caught one at the first trial, and very little time and trouble were required to collect a number for subsequent microscopical examination.

The present mode of treating scabies has been of great utility to the hospital. Formerly patients with this affection were admitted into the wards, and constituted a large proportion of the cases in the hospital. Now they do not enter the hospital, and hence, the accommodations for other cases are proportionably greater than they were.

A vast number of out-patients are examined and prescribed for at the St. Louis Hospital. For this purpose the medical officers attend at the consultation room daily, in rotation. For these cases as well as for the patients in the hospital, extensive bathing accommodations are provided, and a large proportion of the patients who apply, receive only permits for simple, or medicated baths. The number of baths administered is immense, viz: in one year 50,000, exclusive of 40,000 fumigations, and 2,000 *douches*.

The following description of the provisions for bathing, etc., at St. Louis, is copied from notes written after a visit made expressly to examine this department of the institution: In a long ward on the ground-floor, are thirty bathing tubs, arranged in two rows, with provision for the supply of cold and warm water in any quantity. These are appropriated every Wednesday and Saturday, in the forenoon, by patients who undergo the process for the cure of scabies.

Adjoining this ward is a small apartment containing accommodations for two baths, for isolated cases.

An apartment is devoted to *douches*. A metal tube is connected, by means of a long flexible hose, to a spout regulated by a stop-cock, allowing a stream of water to be directed, at different

distances, on any part of the body. There are arrangements for *douches* with warm or cold water in this apartment. In another room is a chair constructed for the administration of *lavements*.

Passing into another apartment, a metal cylinder about two feet in diameter, extends from the stone floor, vertically, about two feet and a half. This room is small, the walls, as well as the floor, is of stone, and a series of stone steps, constructed in the form of a semicircle, extending upward about ten feet. This apartment is for vapor baths. The patient taking different altitudes by means of the stone steps, can vary, to some extent, the degree of exposure to the vapor.

In another room shower baths are administered, the stream of water being subdivided into a great number of jets.

Lastly there is an apartment for fumigations. These are administered by placing the patient within a box containing a series of chairs. The box is tightly closed, with the exception of holes in the top through which the head is passed, leaving the body within the box. The fumes of the medicinal substance employed are produced by heat, conducted within the box, and in this way, brought into contact with the body.

The different kinds of baths, douches, and fumigations prescribed at the hospital, are as follows:—

1. Simple bath.
2. Vapor bath.
3. Sulphurous } 1. Strong.
4. Alkaline } 2. Ordinary.
5. Starch bath, (*de fecule de pommes de terre*).

The last mentioned is of two forms, viz: 1. strong, 2. ordinary.

DOUCHES.

1. Sulphurous.
2. Vapor.
3. Alkaline.

FUMIGATIONS.

1. Sulphurous.
2. Mercurial.
3. Aromatic.

A valuable feature of the practical work by DEVERGIE is that considerable space is devoted to the consideration of baths in connection with the management of cutaneous diseases. Much im-

portance is attached to the employment of the different kinds of baths, by the French practitioners, in the treatment of diseases generally, as well as those seated on the cutaneous surface. They employ them to a much greater extent, both in private, and public practice, than is the custom with us. In this respect, it is probable that American practice offers room for improvement; and, if my leisure permitted, I would append to this letter a translation of that portion of the work just referred to, which treats of this subject. I may find time to do this hereafter; meanwhile, I remain,

Very truly yours,
AUSTIN FLINT.

Art. III.—M. DEVERGIE ON BATHS, ETC.

TRANSLATED FROM THE FRENCH BY PROF. FLINT.

The following is a translation of the Chapter on Baths, etc., contained in the "*Practical Treatise on Diseases of the Skin*," by M. Alph. Devergie, one of the attending physicians at the St. Louis Hospital, Paris. The translation is made in accordance with a partial promise contained in the foregoing letter from Paris relating to the St. Louis Hospital.

TRANSLATION.

It appears to us important to devote a chapter specially to baths, mineral waters, and sea-bathing, not only because they are the most potent agencies in the management of diseases of the skin, but because very little has been written upon vapor baths and *douches*, and since most practitioners are satisfied simply to prescribe the use of waters without being able to give their patients any precise directions, relinquishing to the physicians of each establishment the entire direction of the method of administration. Without absolutely condemning this course, I will say that the

practitioner, acquainted with the condition of his patient, ought to furnish him with some special instructions, and it is with reference to this view of the subject that I present the following considerations:

Aqueous Baths.

An aqueous bath acts in three modes, viz: by the liquid of which it is composed, by the temperature of this liquid, and the duration of the bath. As regards the first mode, water is absorbed as well as principles which it may hold in solution. The fact of absorption is demonstrated by persons urinating six, seven or eight times during a bath of an hour, or an hour and a half, although the bladder was empty immediately before entering the bath. However, in this respect different persons differ greatly, the organization of the skin in some being such that absorption is very active, while there are some persons whose dry skins absorb but little, as there are some who almost never perspire.

The absorption of substances held in solution in water is rendered evident by the use of medicated baths, for instance those in which corrosive sublimate is dissolved, by means of which a very satisfactory mercurial treatment may be employed, curing constitutional syphilis quite as well as when this remedy is administered internally. Alkaline baths, those of Vichy for example, furnish still more decisive proof of this statement, so that it may be laid down as a general rule that water medicated either naturally or artificially, as sulphureous mineral waters, or those which are alkaline, saline or impregnated with iron, are not restricted in their effects to the action exerted on the skin as a sedative, astringent, excitant or tonic, but their influence extends over the whole economy in consequence of their transporting to the blood the remedial elements which they contain.

An analogous absorption obtains in plants, which sustains the foregoing statement. Let a plant of any kind be sprinkled with a saline solution added to water in proportions not to prove injurious to vegetation, and there will be found in the vegetable, and all its products, leaves, flowers, and fruit, the substance contained in the water with which it had been sprinkled. Thus one can obtain salted grapes by watering the earth in which the vine grows with salt and water. The sulphate of iron, so extalled for its in-

fluence on vegetation, acts upon vegetables, which I call chloratic, or of sickly growth, as it acts on man. Soluble poisons even are absorbed by vegetables.

Hence, every practitioner who orders a bath or a mineral water, should bear in mind these facts, and consider the composition of the water with reference to absorption.

An aqueous bath not only acts by reason of its composition, but still more, by means of its temperature; and the latter exerts an influence very potent upon the person who makes use of it. Between a very hot bath in which we immerse an infant threatened with cerebral congestion, and a cold bath in which an individual sweating freely is placed in hydropathic practice, there is an immense distance, the effects being altogether different.

A water bath which has an amount of heat agreeable to the person immersed, is an emollient and antiphlogistic bath; any increase of heat excites the circulation; and a considerable increase accelerates greatly the heart's action, inducing a certain amount of cerebral and pulmonary congestion, so that a person who dies in a bath of too great temperature, succumbs to congestion of the head and lungs.

A bath below the medium temperature above mentioned, is a sedative bath for persons in whom the circulation is very active. These persons warm their baths as is commonly said, and with truth.

A bath colder, becomes tonic, and an excitant provided that one remains in it a short time only. At a temperature still more reduced, it induces, like the hot bath, pulmonary and cerebral congestions, but by another mode of action, viz: suppressing the excentric capillary circulation, and driving, so to speak, the blood within.

If cold baths are employed by a person in full perspiration, it is the perspiration provoked by sheets wet in cold water which exerts a sedative action, and by immersion for some seconds in cold water a reaction follows which strengthens the patient. The instantaneous contact of cold water produces this effect; prolonged contact may prove fatal by repelling from the periphery the blood to the lungs and brain.

The temperature cannot but be fixed upon with some difficulty

when the object is to direct a temperate bath, which I call an antiphlogistic bath; for it is always relative to the subject. A bath, in my opinion, is really antiphlogistic when it is agreeable to the person taking it.

The duration of a bath, as must be at once evident, has a great influence on its therapeutic action, but this influence is altogether relative. With reference to ordinary baths there are persons to whom an ordinary bath prolonged for half an hour, proves debilitating. In such cases a half-hour bath is equivalent to a bath of an hour for the generality of persons. Persons of a bilious or a bilio-sanguine temperament frequently take baths of two or three hours duration without being in the least degree enfeebled. A duration of a hot bath equal to that of a temperate bath, is much more debilitating. A cold river bath of fifteen or twenty minutes duration is a tonic bath provided the person knows how to swim, but it suffices to remain in the water eight or ten minutes to obtain the same result if this be not the case.

Cold river baths prolonged for two or three hours, even with swimming, are essentially debilitating, and with persons of a lymphatico-sanguine temperament they predispose to rheumatism, if, indeed, they are not adequate to induce it.

All these statements undergo modifications when applied to baths artificially medicated, or when the water is derived from mineral sources. The mean duration of a mineral bath is from three-quarters of an hour to an hour, but in some cases this period may be prolonged in consequence of the nature of the water, and the custom of the locality, the latter determined by experience. Thus, as a general remark, a pool-bath (*de piscine*) is supported longer than one taken in a bathing-house; for example, in the pools of Louesche one can remain every day for three, five and seven consecutive hours.

Bathing in a running stream may always be more prolonged than bathing in still water. Baths taken in running water have an action altogether special on the skin, which baths in still water do not have. What is this action? We cannot define it in precise terms. It is exerted by the friction of the water on the skin, or by the more rapid subtraction of caloric in multiplying the points of contact of the liquid? How it is we are not prepared to

say, but the action is much more energetic. At the baths of Bigorre there is a pool in which the water rises almost in surges. This pool is constantly filled with bathers, and this preference is thus marked because baths of that kind are much more efficacious in relieving neuralgic affections for which they are employed. The water which rises there is of the same nature as in the grand establishment.

In conclusion, when the practitioner prescribes a bath he must indicate precisely the duration according to the kind of bath, and the state of the patient.

Liquid Douches.

These are of two kinds: douches in which the liquid is applied in a single jet, and those in which it is applied by showering. In the former case a jet is made to flow from a spout, the size varying from one extremely small, to one of a diameter of eight or ten *centimetres.** Larger than this the *douche* receives the name of "*flot*," as it is called in hydropathy. It is evident that when the mass of water is considerable, it is a stream, rather than a *douche;* for the latter supposes a fall of water from a greater or less height, but preserving in its course the form of a small column; whilst the *flot* sometimes falls in a sheet from a great height, and sometimes it escapes in a column from a reservoir but little elevated, else it would be impossible to support the force of the blow. Generally the jet of a *douche* varies from a diameter of two or three *millimètres*, to one of a *centimètre* and a half.

Douches by showering are composed of a series of jets more or less fine, which escape simultaneously from one spout.

Few *douches*, either of a single jet, or by showering, in establishments for the use of mineral waters, or in those of Paris, either in the hospitals, or in the city, fulfill the conditions, which one ought to find in them, viz: a jet neither twisted nor divided, preserving the same diameter for the distance of a *mètre*, the surface representing the clearness of a mirror. This depends on the formation of the socket for the stop-cock, and the form given to the aperture through which the stream flows. One is surprised in

*It is troublesome to reduce the French measures to English with exactness. A *metre* is 1.093633 yard, a *centimetre* is a hundredth, and a *millemetre* a thousandth of a *metre*.

looking at the water running from the casks of the water-carriers in Paris, at the purity of the stream, but on going into a bathing establishment sockets for stop-cocks are rarely found that are not badly made, and far from having the perfection of the apertures in these water-casks. This may seem almost puerile, or, at least, dealing with the *minutiæ* of the administration of *douches*, but I desire to call attention to the importance of such points, in order that the medical inspectors of mineral-waters may be led to introduce improvements in the contrivances by which these watere are applied.

A liquid *douche* has two quite different kinds of action, viz:—1st. It exerts an influence determined by the nature of the water. This mode we will not stop to consider. 2nd. Its action is altogether different according as it is by jet, or showering.

It is necessary to have employed these therapeutical agents in order to understand their importance. The *douche* by jet produces on the skin the sensation of having been struck with a hammer. In this point of view it is calculated to blunt the sensibility. It is thus suited to neuralgies and affections in which there is a venous sur-excitation of the skin, like that occasioned by phlebitis. The *douche* by showering, on the contrary, stimulates the skin, causing a stinging, pricking sensation, which, when it is powerful, is like the points of needles exciting the skin in a painful degree. This kind of *douche* is therefore well suited to paralytic cases. This distinction, not heretofore made, as regards the effects of *douches*, is of great importance, and one can readily conceive the necessity of having properly constructed means of application, for if the small jets are confused, crossing each other, breaking, and re-uniting in their course, the effect is not the same, the *douche* is useless. It is generally imagined that the vessel for showering must be of large size to furnish many jets. This is an error. A small surface, a diameter of two or three *centimètres*, suffices for all purposes.

Assuming the appendages to be well constructed, it is necessary that a *douche* have a great height, and that the reservoir be of a given form. A *douche* from a reservoir six *mètres* in depth, has a feeble power; but in exceeding this distance a great force is at once attained, one of ten *mètres* producing a certain action. It is

of importance that the reservoir have its capacity in depth, not in width.

Moreover, with provisions for the most powerful *douches*, the feeblest may be administered. For this it suffices to turn the stop-cock one quarter or a half, so that there is a great advantage in having a reservoir of great depth. The practitioner has so often to prescribe the use of these measures that I feel bound to enter into such details. There are, besides, several modes in which they are to be employed. Either they may be given alone, without bathing, that is to say, the patient, being naked, is seated in a chair, or extended in a bathing-tub, and the water allowed to flow, after which he is immediately dressed and made to walk rather briskly, if he be able, in order to sustain the excitant action of the *douche;* or, on the contrary, if we have to do with a nervous, impressible subject in whom we fear to produce too much excitation, it is necessary that the *douche* be received in a bathing-tub, and immediately afterward a simple bath be taken, which may be continued a half-hour, in order to diminish the sur-excitation caused by the *douche.* In reality, a *douche* always gives rise to some disturbance of the nervous system which a bath immediately calms.

A *douche* may be local or general. When it is local, it is highly important sometimes to guard other parts of the body against the water, especially in winter. It is often useful, in applying a cold *douche* to the head, to place, at the same time, the patient in a very warm half-bath, in order to invite the blood to the extremities. In such cases the patient is efficiently protected by a small cloak of india-rubber cloth. In bathing establishments there are divers means for preserving certain parts of the body from the water of the *douche*, such as wooden fans or screens of some kind for the face when the *douche* is applied to the shoulders. A mode which we often adopt in cases of *acne rosacea* when the *douche* is directed on the face, is to apply a covering of caoutchouc adapted to the mouth, connected with a tube sufficiently long and wide through which the patient respires without difficulty. This covering is fixed by two strings passing around the head above the ears.

(*Conclusion in the next number.*

Bibliographical Notices.

ART. IV.—*Transactions of the Medical Association of Southern Central New York*, at the eighth annual meeting, held at Homer, June, 1854.

The Transactions of the Medical Associations of our country possess much interest, not only for the valuable information which they bring forth, but as marking the activity of medical men in reference to the profession. They afford evidence of life. They denote progress, and in this point of view are highly important. We propose making extracts from the volume of Transactions before us, which contains an unusual variety of matter. We pass over the President's Address, and the Essay on Medical Education, to notice papers of a more practical character. One of these is an essay on Opium and the sulphate of Quinine as remedial agents. The author, Dr. NIVISON, presents the following views in reference to their use in fever:

"We shall usually find, when called upon to treat a case of Idiopathic Fever, without much reference to its type, or indeed the stage of its progress, very many of those symptoms which indicate a discordant state of the nervous system. There is either prostration, or pain, or delirium, or what is more disagreeable than either, and which I know not that any language can describe; it is neither restlessness, nor suffocation, nor jactitation, nor anything else in particular; but rather a componnd of all manner of disagreeable sensations. Either some one or more of these conditions, (unless, indeed, the patient should chance to be in the comatose stage of a congestion,) will probably be present.

Our first object in the treatment will therefore be, to restore the tone and regulate the action of the nervous system. From two to four grains of Quinine, with a grain or two of Opium, repeated once in from four to six hours, will usually soon accomplish this. The patient soon feels better, the countenance becomes more animated, the pulse approaches the healthy standard, the circulation is comparatively equalized, and the skin usually moistened. If we can secure and maintain this state of things, which is usually

not difficult, we have the case under control. The next important step, is to look to any complications that may exist. And if we have carefully noted the symptoms before the Opium and Quinine took effect, and compare them with those that still remain, we shall probably find that very many of those that indicated local congestion or inflammation have disappeared. We have already put the general system in the best possible condition for the *vis medicatrix naturæ* to exert her latent powers. But obstacles may exist, to the removal of which her utmost efforts are inadequate. If such we find to be the case, there is an urgent demand for interference on our part, and we shall perhaps be surprised to find the greater facility with which we can now accomplish our purpose, than before the effect of the Opium and Quinine had been obtained.

"Now, that we have enlisted Nature's forces in our service, we will find a mustard plaster more potent in removing some local congestion than the entire armament of cups, leeches, blisters, &c., would have been before. Two or three blue pills, followed with a sedlitz powder, or a dose of castor oil, will more effectually arouse the liver, and evacuate the bowels, than half a drachm of calomel would previously have done; and this, too, without violence to the mucous coat of the stomach and bowels. Indeed, we think if this system of treatment were more generally adopted, we should have very much less to charge to the account of gastro-cuteritis as the cause of fevers.

"To secure and maintain the tone of the nervous system, and to treat any local complications as they arise, we think comprises nearly our whole duty in the treatment of fevers; all else we may safely leave to the recuperative powers of nature. If the treatment be commenced early, we shall usually cure the disease before any considerable local disturbance arises. If not till a later period though we may not be able to arrest the disease at once, we may still shorten its duration. We think the ancient dogma, that 'we can guide a fever, but cannot cure it,' to be substantially incorrect. It is but just, however, to remark that a limited number of cases have fallen under our observation, in which the function of innervation partially refused to yield to the influence of Opium, Quinine or anything else, and the fever continued for a number of weeks. But these cases are so rare as to form the exceptions and not the rule, and even in the cases referred to, it is possible some concealed enemy was lurking beneath the surface, and possibly if the Quinine had been used in larger doses the results would have been more gratifying. With the heroic doses of modern times we confess we have had no experience, though we sometimes give 20 or 30 grains during the twenty-four hours.

"In regard to Opium, we consider it almost invaluable in the treatment of fevers; yet it is obvious that so potent a remedy must

be used with extreme care. Though we may remark that in combination with Quinine, the system will tolerate it infinitely better than when given alone. Many patients that, from constitutional idiosyncrasy cannot use it at all when given alone, in combination with Quinine will take it without inconvenience. In general, in giving Opium in fevers, we may content ourselves with the exhilarating effect; but if local inflammation exist, they will modify the febrile action, and we may then approach its sedative effects. An occasional inconvenience from its use is to produce copious perspirations. We must here diminish the dose, or if need be, for the time being, suspend it altogether. In the purely intermittent forms of fever, we consider it less important than in the continued. The Quinine we think equally useful in all."

The following essay will be read with interest:

"*An Essay on the Depraved General Health sometimes occurring before Parturition, and its consequences.* By. R. O. CRANDALL, M. D., Waverly, New York.—The object of this paper is to present a few thoughts, suggested by a limited experience, upon one of the morbid conditions occasionally connected with, and modifying the puerperal state; to wit: a depraved general health, before parturition, and its consequences.

"We may premise here, that it will not be difficult to distinguish this mixed disease from the class of puerperal diseases since we are familiar with *their* more prominent symptoms, acquired from the text-books, if not from personal experience. On the other hand, the disease in question has been considered of so little importance as hardly to merit a passing notice.

"From my own experience, however, with general principles as the only guide to treatment, it appears to demand attentive consideration. The derangement of the general health as applicable to this subject, the following train of symptoms will sufficiently illustrate:

"The patient is a female, aged 36 years, the mother of three children, residing upon a farm on the bank of the Chemung river, and in a neighborhood where bilious remittent fever prevails. She complains of having been unwell for nearly a year past; did not think herself in need of medical treatment, but thought it would wear off. She had not given up to it—in fact, she had performed her ordinary household duties. Latterly it required an extra effort and the lightest labor induces fatigue.

"The first tangible sign of illness she can recollect, is a feeling of lassitude; then loss of, or depraved appetite, and a desire to avoid physical and mental exertion. Next notices a dull pain in the side, which, after a few days' continuance, extends along the back to the shoulder blade, and had been persistent. Pain also in the head in the after part of the day, and constipation of the

bowels, alternating with diarrhœa. There are pains in the back and hips, frequent palpitation of the heart, and acidity of the stomach. The face becomes pale, or assumes a yellowish hue. The body is flaccid, and likewise pale, the feet are affected with edematous swellings. The patient's sleep is disturbed, and she is irritable and desponding. The general system confesses to an earnest sympathy for its component parts.

"Thus much in explanation of the condition referred to. To proceed, as near as may be, into the order of events: Sometime within the year, in which the foregoing train of symptoms were developed, or perhaps within the last six months, the patient became pregnant. She has not deemed it necessary as yet to consult her physician.

"Gestation now furnishes to her mind a satisfactory explanation of the cause of her ill health. She anticipates ill health for months to come, and flatters herself that her confinement will completely restore her. Thus the case is neglected and permitted to progress uninterruptedly, for several months, because the consequences of neglect under these peculiar circumstances are not duly appreciated.

"The legitimate consequence, is an additional degree of derangement of the local organs, and of the general system. Since, the same causes remain, continue in operation, and are not materially modified by utero gestation.

"In the very grave cases in addition to the symptoms already described, there is serous effusion into one or more of the cavities of the body. The effusion usually commences with edematous swellings of the lower extremities succeeded by ascites and hydrothorax. The constitutional symptoms are loss or want of appetite, great debility, with the quick, weak fluttering and irregular pulse of palpitation, indicating a state of high nervous irritability.

"In these cases, it becomes a matter of serious doubt whether the patient will survive to experience the pangs of labor, nor do they always. The great majority of cases, however, pass through parturition with little or no apprehension of danger, either on the part of the patient or physician, unless, happily, the wits of the latter have been sharpened by personal experience in similar cases.

"The parturient state is modified in a greater or less degree, varying with the previous constitutional dyscrasy. Serous effusion to any considerable extent, adds greatly to the distress of the patient. There is a relaxed state of the muscular system, and a consequent diminution of resistance. There is also a feeble contractile or expulsive power; and the capacity for endurance is proportionable small, but delivery is accomplished quite as speedily, and with no more suffering than in ordinary cases.

"The patient has now entered upon the puerperal state, very many sources of danger have been removed, but the effects of perhaps protracted suffering, of violent pain, of mental alarm, and of 'what may be termed the shock of parturition,' have an important bearing upon the case, and are to enter into its consideration.

"The patient finds herself very much relieved; the mental and physical anguish is past, and she is encouraged with the hope of 'a good getting up.' Ordinarily, the appearances are improved for a longer or shorter period; and the physician too, unless extremely cautious, indulges hopes which the convictions of his better judgment will not sustain.

"But if it is one of the cases in which effusion has taken place, other than mere œdema, there is increased prostration of strength, and you have, within forty-eight hours, a decided aggravation of all the symptoms. There is febrile action, indicated by heat of skin, and thirst; but the external surface remains pale or sallow; the mucous membrane of the mouth and tongue is likewise pale; there appears to be an insufficient proportion of coloring matter in the blood to produce even a decided flush of redness. All the cavities of the body are rapidly filling with serum; the expression of the countenance is not indicative of pain, but of great anxiety in consequence of the constant and distressing palpitation, and a sensation of impending suffocation. The bowels are confined, the urine scanty and highly colored. The patient cannot assume the horizontal position, but reclines with the head and shoulders elevated. The appearances all point towards a fatal termination. The termination may be either speedily fatal, protracted to another pregnancy, or postponed indefinitely, depending very much upon the precise course of treatment adopted and carried out, though the great majority, I believe have a speedy termination.

"In the cases unattended with dropsical effusion, the constitutional disturbance is frequently comparatively slight; the same peculiar appearance of the mucous membrane, and of the skin, confined bowels, and occasional palpitations. Taken as a whole, in connexion with the puerperal state, the symptoms do not appear to indicate any cause for serious apprehension, with the exception perhaps, of the general anæmia, as denoted by the paleness of the general surface, and more especially of the prolabia, the internal surface of the cheeks, the gums and the tongue.

"Patients under these circumstances are occasionally discharged within a week after confinement, with the impression that they will soon get up, and do not require farther treatment. The patient, however, continues, although imperceptibly, to fail in strength, the characteristic paleness of the mucous membrane becomes more striking, the desire for food is wanting, or failing, but there is no complaint of pain. The general expression does not

indicate physical suffering; there is no febrile excitement. There is almost an entire absence of *positive* symptoms of disease, but the patient sinks about the third week after confinement.

"With the pathological appearances I am not familiar. I believe them to be very similar to those of anæmia. In some of the cases, organic disease of the stomach, liver and spleen, in others no appreciable appearances to account for the result—merely a decided general paleness of the tissues. The course of treatment apparently indicated, and that generally practised, so far as my observation has extended in this direction, is mild alteratives and tonics, such as mercury and iron, strict attention to the state of the bowels, to diet, air, &c. Opiates are frequently indispensable, to allay nervous excitability. My professional neighbors believe these cases almost uniformly fatal. Dr. Hoyt of Athens, Pa., gave me some account of seven cases, all of which were fatal.

"In my own practice I have varied this course of treatment by administering daily, or every other day, according to circumstances, a full cathartic dose of calomel, notwithstanding the extreme debility, until three or four doses have been taken, or until a change can be detected in the appearance of the mucous membrane. A thorough action of this agent, instead of increasing the exhaustion, has the effect of a powerful tonic.

"The patient expresses her surprise, not only that she lived through the operation, but that she really feels stronger; and such is the case. After the morbid actions are once interrupted, or rather changed, the mild tonic and alterative course is the appropriate one. I have very much encouragement to persist in this modified treatment."

The subjoined case is instructive:

"*Hypochondriasis resulting in death.* Reported by Dr. T. H. Squire.—Henry Potter, Esq., was a man fifty years of age, spare in person, and of melancholy temperament. Of his early history and health I have no definite knowledge. For the last few years, his habits have been sedentary. Acting as Justice of the Peace, and County Clerk, his mind has been taxed by monotonous cases, whilst his physical frame has been comparatively at rest. To the fatiguing duties of his office were added the cares of a large family, dependent mainly upon him for their support. This state of things made no sensible impression on his health, however, so long as the immediate future presented no worse prospects; but when the expiration of his term of office drew near, apprehensions of coming adversity took possession of his thoughts, and he grew more melancholy and desponding. His office finally expired. His features grew long, his countenance assumed a darker shade, and he was well nigh sick a bed. Just then he obtained a clerkship in the Post-office, where his labors occupied

the whole day, and often trespassed much upon the night. Soon this situation was taken from him, and then, being unemployed, he sat down in the midst of his family, and gave way to the most gloomy forebodings. His appetite left him. For several days he paced his floor in moody silence. Evidence of mental delusion then came on. He fancied himself not only poor and idle, but greatly in debt; and next a morbid consciousness of fraud, and fears of exposure, took possession of his faculties. In this condi- of body and mind he went to bed, where he had remained, without food, for the space of one week, when I first saw him. This was on the 21st of February, at which date I made the following minute of his case:

"'He is very poor in person, and sharp featured; the abdomen is so shrunken that the pulsating aorta can easily be felt; the ribs are drawn down to the crest of the illium; the pulse is very slow, part of the time to forty-six even; the face is turned towards the wall, and the fore arm, flexed, is laid over the eyes; the respiration is slow and sometimes sighing; the skin is dusky; the tongue clean; the bowels costive; the urine scanty and highly colored. In this state he lies, and it is seldom that his attention can be aroused. When spoken to, he will sometimes draw a long breath and, presently, in a low, half articulate voice, utter a brief reply, but more generally makes no sign of recognition whatever. For the past week he has been under homœopathic treatment in a close chamber. By much persuasion I induced him to take one oyster and two spoonsful of soup, but no more.'

"Viewing the case as one of mental delusion, rather than physical disease, my advice was that the patient should be taken from home, and kept among strangers and strange scenery, till new and rational ideas might take the place of old and delusive ones, after which, I had reason to believe, he would take nourishment and prevent death. I labored a whole week, before I could effect this object.

"At length the reluctance and indecision of friends was overcome, and he was taken on board the cars for New York, on Saturday noon. By my direction, he stopped for the night at Delaware; and there he spent the Sabbath, walking about the streets, talking much of the time. Here he took food also, more than he had done for the week previous. But by his entreaties to return, his son (who unfortunately was his attendant) was prevailed upon to bring him back on Monday. Again I repeated my advice, and urged its adoption, but another physician was called in, who, entertaining different views of the case, thought best that he should remain quietly at home and take medicine. From this time he grew more and more deranged, and took no nourishment, under the obstinate delusion that food, if taken into his stomach, would certainly kill him. During the latter days of his life he moved

about more, and was less disposed to maintain silence. Sometimes he would ask for a knife 'to cut open his belly and see what was in it,' 'for a saw to saw his leg off,' also to be 'taken into a field and shot.' These and many other similar expressions, peculiar to the hypochondriac, were made use of by him. He died of starvation, on the 19th of March. I was not present at the post mortem examination, but was informed that no well-marked pathological appearances were discovered, at least none sufficient to account for death.

"Elmira, June 2, 1854."

ART. V.—*Healthy Skin: A popular Treatise on the Skin and Hair, their Preservation and Management.* By ERASMUS WILSON, F. R. S.; Author of a Treatise on Diseases of the Skin; a System of Human Anatomy, etc., etc. Second American from the fourth and revised London edition. With illustrations. Philadelphia: Blanchard & Lea. 1854. pp. 291, 12mo.

When we first glanced at the title on the cover of this little volume we supposed it was another monograph on cutaneous diseases, but a slight examination of its contents shows it to be, what its title imports, a popular treatise on physiology and hygiene, as connected with the skin. The former subject, we must confess, has no great attractions for us. We have ever found it dull, and we felt no particular impatience to see what Mr. WILSON had contributed to its literature. But our disappointment was of an agreeable kind on finding the treatise to be really a philosophical essay, and not a mere technical account of prurigos, lichens, tetters, *et id omne genus*. Not that we undervalue the importance of works on cutaneous diseases; we admit their worth and necessity; but just at this time we were feeling the want of a treatise on the skin like the one before us—one devoted not to the treatment, but to the prevention of its diseases.

This work abounds in curious and instructive details, and most of Mr. Wilson's readers will be surprised at some of the strange phenomena pertaining to the exterior of the human body, and perhaps be ready to exclaim with Hamlet,

> "There are more things in heaven and earth, Horatio,
> Than are dreamt of in your philosophy."

Most of them are probably acquainted with the habits of the *itch insect*, which, burrowing in the skin, excites the cutaneous affection always associated in the mind of the great English lexicographer with Scotland; but here is the history of another denizen of the skin discovered by our author and delineated in his work before us. He says:—

"A few years ago, there were discovered by a German physician, Dr. Simon, in the unctous matter which collects within the oil-tubes, certain minute animals, of which he published an account in the June number of a German periodical, *Muller's Archives*, for 1842. Having read Dr. Simon's account, I set myself to work to seek for the animals in question, and before the end of June had seen some hundreds of specimens, and become so far interested in the subject, that I pursued it with almost exclusive attention for six months. In the course of this investigation, I examined many thousands of the animals, and arrived at some novel conclusions with regard to them. I found that Dr. Simon's description and figures were imperfect; that he had overlooked several points of entomological importance in the structure of the animal; as, for example, the head: and that he had left one vein of the mine, namely, the progressive development of the young from the growth and hatching of the egg, to maturity, entirely unopened. Under these circumstances, I was enabled, in the month of December, 1842, to communicate to the Royal Society a paper, since published in the *Philosophical Transactions*, containing many original observations, and upwards of forty figures of the animal. In this paper, I found myself under the necessity of changing the name given to the animalcule by Dr. Simon, as being founded on a wrong view of its structure and zoological position. As a temporary appellation, I termed it entozoon folliculorum; but, upon more mature consideration, and in reference to its habitat and food, I have thought the name *steatozoon folliculorum*, that is, the 'animal of the oily product of the skin,' more appropriate and correct.

"The animalcule of the skin is found in the oil-tubes whenever there exists any disposition to the unnatural accumulation of their contents; it is found in numbers, varying from one or two, to twenty, in the substance of the little grub-like cylinder which is

squeezed out by the pressure of the fingers, and this in an apparently perfect state of health of the skin, or, more correctly, without any appearance of disorder, for the skin cannot be said to be in perfect health when its functions are performed in a torpid manner. Now, as in the majority of mankind, and certainly in all the inhabitants of cities and large towns, the skin is more or less torpid in its functions, so the presence of this animal in the skin is the rule; its absence, the exception. I have found it at all ages, from youth to old age, more numerously, it is true, at the latter than the former period, and in great and remarkable numbers during sickness. Under these circumstances, I see no other conclusion open than to assume that it performs some beneficent purpose in the economy of the skin; that purpose being, according to my belief, the disintegration of the over-distended cells, the impression of a new condition on the contents of the cells, and the stimulation of the tubes to perform their office more efficiently. In corroboration of this view is the fact, that these little creatures increase in numbers when the vital powers decline, so that, when the energies of the system are reduced by disease, and when the skin, participating in that reduction, is unable alone to fulfil its functions correctly, these little beings are produced to aid it in its work.

"The steatozon folliculorum is extremely minute, and quite undistinguishable by the naked eye, the longest I have seen being but little more than a quarter of a line in length; that is, forty-five, placed end to end, would measure only one inch. In form and shape, in the perfect state, they are very like caterpillars, and have a distinct head with feelers, a chest with four pairs of legs, and a long tail. The whole body is so transparent, that its interior may be easily seen, and the animal always occupies the same position in the oil-tube, the head being directed inwards, and the tail towards the aperture of the tube, as though it had crept into that situation from without. In some persons, these singular creatures are larger than in others, and in some than in other parts of the face. So much is this the case, that an eminent naturalist, to whom I showed figures of their varieties, considered the difference between the two, not merely in length, but also in shape, to amount to a specific character. If this be the fact, we may look, I imagine, for the shorter variety on the alpine ridges of the nose or eyebrows, and the longer kind in the glades and valleys of the nose and cheek. But the real cause of the difference in length I believe to be a relative diversity in the caliber of the oil-tubes in different situations, associated with a various degree of density and nutritive property of the oily matter. In the same group, also, we find eggs, embryonic forms, and young, all mingled together in confusion. In pursuing this inquiry into the animal world, I have examined them in the dog, and have found them

more recently in the horse. In both these animals, the steatozoa are relatively larger than in man, and, at the same time, more tapering and slender."

We do not cite this passage as a specimen of Mr. Wilson's philosophy, with which we should be obliged to quarrel a good deal if we were going into a critical examination of his views, but we give it as an example of the curious phenomena connected with the economy of our bodies. It would be a bungling contrivance, it appears to us, to load the skin with such epizoa that it might be enabled to perform its healthy functions. Maggots in the oil-tubes of the skin, to rid them of their inspissated contents! Healthy function stimulated to greater efficiency, by the presence of animalculæ! But we pass by the theories of our author to notice some of the other interesting facts detailed in his treatise. Many instances of sudden change in the color of the hair are on record. Mr. Wilson has collected a number of these cases which we here extract:

"A lady of some literary eminence, to whom I related the foregoing instance of sudden blanching of the hair, informed me that an aunt of her own had become gray in a few days, in consequence of the shock occasioned to her nervous system, by finding, on waking in the morning, a beloved sister lying dead by her side. Mary, Queen of Scots, and Marie Antoinette both became gray in a short period, from grief. Sir Thomas Moore, we are told, turned gray during the night preceding his execution. According to Borellus, two gentlemen, the one a native of Languedoc, the other a Spaniard, were so violently affected, the first, by the announcement of his condemnation to death, the latter, by the bare thought of having incurred a serious punishment, that both became blanched in the course of a single night. The gravity with which Daniel Turner relates the following case, which he attributes to Schenkius, is amusing: "Don Diego Osorius, a Spaniard of a noble family, being in love with a young lady of the court, had prevailed with her for a private conference, under the shady boughs of a tree, within the garden of the King of Spain, but by the unfortunate barking of a little dog, their privacy was betrayed, the young gentleman seized by some of the king's guard and imprisoned; it was capital to be found in that place, and therefore he was condemned to die. He was so terrified at the hearing of his sentence, that one and the same night saw the same person young and old, being turned gray as in those stricken in years. The jailor, moved at the sight, related the incident to King Ferdinand, as a prodigy, who thereupon pardoned him, saying, he had

been sufficiently punished for his fault.' And again, this, from the same author: A young nobleman 'was cast into prison, and on the morrow after, ordered to lose his head; he passed the night in such fearful apprehensions of death, that, the next day, Cæsar sitting on the tribunal, he appeared so unlike himself, that he was known to none that were present, no, not to Cæsar himself; the comeliness and beauty of his face being vanished, his countenance like a dead man's, his hair and beard turned gray, and in all respects so changed, that the emperor at first suspected some counterfeit was substituted in his room. He caused him, therefore, to be examined if he were the same, and trial to be made if his hair and beard were not thus changed by art; but finding nothing counterfeit, astonished at the countenance and strange visage of the man, he was moved to pity, and mercifully gave him pardon for the crime he committed.' And he follows this case with another, both being intended to illustrate the force of imagination. 'Somewhat like this,' says he, 'is that relation of Esquire Boyle's, who tells us, that when he was in the county of Cork, in Ireland, there was an Irish captain, who coming to deliver himself up to my Lord Broghil, commander of the English forces in those parts, according to a pardon proclaimed to those Irish that were willing to surrender themselves and lay down their arms; he was casually met with some of his followers, by a party of English, and intercepted, the governor being then absent. Upon which the poor captain was so apprehensive that he should be put to death, before my lord's return, that the very fear and anxiety of his mind quickly changed the color of his hair, in a peculiar manner, not uniformly, but interspersedly among some of his locks, which were perfectly turned white, the rest of them retaining their wonted reddish color.'

"Dr. Cassan records the case of a woman, thirty years of age, who, on being summoned before the Chamber of Peers to give evidence upon the trial of Lovel, underwent so powerful a revulsion, that in the course of one night the hair was completely blanched, and a furfuraceous eruption appeared all over her head, upon her chest, and upon her back. Henry of Navarre, on hearing that the edict of Nemours was conceded, was so exceedingly grieved, that in the course of a few hours a part of one of his mustachios whitened. In one person, some of the eyelashes became blanched from mental agitation. The writer of the article, Zoology, in the *Encyclopædia Metropolitana*, 'has known one instance of a banker whose hair became gray in the course of three days, when under much anxiety during the great panic of 1825; and also another gentleman, who, at his marriage, when about forty years old, had a dark head of hair, but on his return from his wedding trip, had become so completely snow-white, even to his eyebrows, that his friends almost doubted his identity.' Moreau

narrates, that he once knew an aged man, for whom, snow-white hair and a countenance deeply marked by the furrows of care inspired the respect which we owe to age and misfortune. 'My hair,' says he, 'was as thou seest it now, long before the latter season of my life. More energetic in their effects than assiduous toil and lingering years, grief and despair, at the loss of a wife most tenderly loved, whitened my locks in a single night. I was not thirty years of age. Judge, then, the force of my sufferings; I still bear them in frightful remembrance.'

"I am little disposed to speculate on the *modus operandi* of this change of color of the hair, but am content, for the present, to give a fitting place to the fact as it stands. The phenomenon may be the result of electrical action; it may be the consequence of a chemical alteration wrought in the very blood itself; or it may be a conversion for which the tissue of the hair is chiefly responsible. In any case, the following explanation, offered by an eminent French chemist, Vanquelin, I should feel inclined to discard, as partaking too largely of the coarser opetations of the laboratory. 'We must suppose,' says the author in question, 'to explain the sudden change of the hair, that at the critical moment when nature is in revolution, and when, consequently, the natural functions are suspended or changed in nature, that an agent is developed in the animal economy, and, passing into the hair, decomposes the coloring matter. This agent must be an acid.'

"The rapid blanching of the hair derives an important illustration from the animal kingdom. Several of the animals which inhabit the polar regions are known to become white during the winter season, and among the most remarkable of these is the lemming. Sir John Ross remarks that, finding the lemming, like the polar hares which had been tamed and kept in confinement, preserve its usual color during the winter, he placed one in the open air, on the first of February, when the thermometer stood at 30° below zero. The next morning, the fur of the cheeks, and a spot upon each shoulder, had become perfectly white. On the following day the hinder part of the body, and the flanks were of a dirty white hue, and at the end of a week, the animal was entirely white, with the exception of a saddle-shaped patch on the middle of the back. No other change ensued, although the poor animal was kept exposed to the cold until it perished. When the skin was examined, the white hairs were found to be much longer than those of the unchanged patch, the blanching being confined to that portion which exceeded in length the natural hairs. So that, when the white ends were cut off, the animal appeared to have regained, with very little alteration, its summer coat, and without any reduction in the length of its fur."

Some chapters on diet, clothing, exercise, and ablutions, as

affecting the health of the skin, follow the description of the structure and function of the skin and hair, and contain much instructive matter. We must indulge our readers in an extract from the latter, and so close our notice of the work, which, having read it ourselves with much pleasure, we can conscientiously recommend to our brethren.

"And now, dear reader, having determined to wash your face, how will you set about it; there are many wrong ways of effecting so simple a purpose; there is but one right way; I will tell it you. Fill your basin about two-thirds full with fresh water; dip your face in the water, and then your hands. Soap the hands well, and pass the soaped hands with gentle friction over the whole face. Having performed this part of the operation thoroughly, dip the face in the water a second time, and rinse it completely; you may add very much to the luxury of the latter part of the process by having a second basin ready with fresh water to perform a final rinsing. And now you will say: 'what are the wrong ways of washing the face? Why, the wrong ways are using the towel, the sponge, or flannel, as the means of conveying and applying the soap to the face, and omitting the rinsing at the conclusion. If you reflect, you will see at once that the hands are the softest, the smoothest, and the most perfect means of carrying the soap, and employing that amount of friction to the surface with the soap, which is necessary to remove the old and dirty scarf, and bring out the new and clean one from below. Moreover, the hand is a sentient rubber, a rubber endowed with mind; it knows when and where to rub hard, where softly, where to bend here or there, into the little hollows and crevices where dust is apt to congregate; or where to find little ugly clusters of black-nosed grubs, the which are rubbed out and off, and dissolved by soap and friction. In a word, the hand enables you to combine efficient friction of the skin with complete ablution, whereas in every other way ablution must be imperfect. Then, as regards drying the face, a moderately soft and thick towel should be used; a very rough towel is not desirable, nor one of thin texture. This is a point which may be safely left to your own taste and feelings. The question of friction during the drying is of more consequence, and this is a reason why the towel should be moderately soft, that you may employ friction and regulate the amount. With a very rough towel it is impossible to use friction, for its tenderest pressure may be enough to excoriate the skin; and a very soft towel is equally open to objection from its inadequacy to fulfil the obligation of friction during the process of drying. In washing the face you have three objects to fulfil; to remove the dirt, to give freshness, and to give tone and vigor to the skin.

"Such is ablution when intended for the purpose of cleanliness, but it must be in the experience of every one, that other effects spring from its use; that nothing is more refreshing than a thorough ablution; that, in point of fact, to those who conduct the operation properly, and with a due attention to temperature, nothing can be more luxurious, nothing restore the energies more surely and agreeably, after hours of toil or exertion; and not those of the body alone, but also, those of the mind. The poet Thomson, in his poem on the Seasons, exclaims:—

> "Even from the body's purity, the mind
> Receives a secret sympathetic aid."

"And Homer, speaking of a person just returning from the bath, and annointed with fragrant oils, says, that he appeared taller and larger than before, and was grown something like the immortals. In relation to health, the common term which we hear applied to the effects of a thorough ablution is 'bracing;' in professional language we speak of them as being 'tonic;' and in truth there exists no better means of restoring the 'tone' of the system than the judicious employment of water; and this leads me to the modes in which water may be used with the best prospect of benefit to the health.

"It must not be supposed, that because water is a good and excellent tonic, that our health would be better for being thrown into a fever by it, or even drowned in it, any more than that a parallel argument would be tenable with regard to food, clothing, or exercise. I know very well that equilibrium is not suited to the times; that there exists among mankind, in medicine as in politics and religion, a certain thirsty 'go-ahead' principle which is absolutely insatiable. I do not say that this character is the peculiar attribute of the present age, for the history of nations proves it to have existed at all periods af the world. There is no philosopher's stone of health any more than for commuting the grosser into the precious metals. But every one who desires it, has the elements of an equally valuable 'arcanum' in conforming to a correct practice of diet, clothing, exercise, and ablution.

"The simplest mode of applying water to the skin, and that by which the smallest extent of surface is exposed, conditions of much importance to the weakly and delicate, is by means of the *wetted sponge.* In this mode, the water may have any temperature that is agreeable to the sensations, a part only of the body is exposed at a time, and as soon as that part has been *briskly* sponged, and as *briskly* wiped dry, it may be again covered by the dress. The whole body may in this way be speedily subjected to the influence of water, and to the no less useful friction which succeeds it in the operation of drying. An invalid rising from a bed of sickness would adopt this remedy by degrees, beginning first with the arms, then proceeding to the chest, and then, gradu-

ally, to the whole body. He would use warm water in the first instance, but if the season were summer, would be speedily able to proceed to cold. A person of weakly habit beginning a system of daily ablution for the first time, should commence in the spring or summer, and by the winter his powers of endurance will have become so well trained, that he will bear cold water without inconvenience. It must be admitted that the plan here laid down is very simple; it requires no apparatus, a sponge and a basin being the sole furniture for its use; but it is no less a valuable appliance to health. The cold chill of the sponge, which was at first disagreeable, becomes pleasant, the quick friction which ensues is agreeable, and while it stimulates the skin, gives action to the whole muscular system; and the warm glow, the thrill of health which follows, is positively delicious. I must, however, call attention more strongly to the 'glow of warmth' over the surface, as it is the test by which the benefit of the remedy is to be estimated, in this and in all other forms of ablution and bathing. I can hardly conceive a case in which the application of water, according to this method, could leave a chill behind it; but if such an occurrence take place, the individual has need of medical aid, and that should be promptly supplied. I may mention that it was the present form of ablution which was used by Sir Astley Cooper, and to which he attributed much of his unusually robust and excellent health.

"The second form of ablution by the sponge requires the aid of a large, shallow empty tub, or sponging-bath, in which the bather stands or sits, while he receives the water from a sponge squeezed over the shoulders and against his body. The same precautions, with regard to temperature, may be taken in this as in the preceding case, but the bather is necessarily more exposed, and the form of bathing is suitable only to persons in moderate health; excepting in the summer season, when it may be borne by invalids. In the early use of the sponging-bath, the bather should content himself with a single affusion from the sponge, and should then dry the body quickly. As there is more freedom for the limbs, there is more muscular action in this than the former method, and the glow is proportionally increased. Indeed, in the sponging-bath, exercise and ablution are combined, and its employment by persons of sedentary habits is highly advantageous. I know but one circumstance that could render the sponging-bath objectionable, and that is, the occurrence of palpitations. This, however, may be obviated, by relinquishing the drying of the body to an attendant, or adopting the 'wet-sponge,' and after a short time, if there be no tendency in the system to disease of the heart, the palpitations will cease.

"Of all the forms of cold bathing, the preceding is the most convenient, the most universally applicable, and in my opinion,

the most conducive to health. It should be taken the instant we step out of bed, and may be shortened or prolonged to an extent commensurate with the temperature of the atmosphere, or the feelings of the bather. I am in the habit of recommending, that a spongeful of water should be given to each of the arms before the trunk is moistened; that the minimum for the trunk should be two spongefuls in front, and one over each shoulder for the back; that there should be one also for each leg. The whole process will not occupy more than one minute; at the end of the second minute the whole body may be dried, and the woollen garments put on. By that time is the winter of the bath made glorious summer. The reward follows quick upon the penance. In many persons, reaction is so rapid, that the whole body is enveloped in a cloud of vapor before the affusion is fully accomplished, and the comparison of Boerhaave, in reference to another condition of the skin, is aptly realized. If, says Boerhaave, the piercing chill of winter could be introduced into a summer assembly, the insensible perspiration being suddenly condensed, would give to each person the appearance of a heathen deity, wrapped in his own separate cloud. The instant the clothes are put on, the whole body feels a warm and refreshing glow. This is the kind of bath that truly deserves the meed of commendation awarded to cold bathing by Agathinus. 'They who desire to pass the short time of life in good health, ought often to use cold bathing, for I can scarce express in words how much benefit may be had by cold baths; for they who use them, although almost spent with old age, have a strong and compact pulse, and a florid color in their face; they are very active and strong, their appetite and digestion are vigorous, their senses are perfect and exact; and, in one word, they have all their natural actions well performed.' To which Sir John Floyer adds, the effects of cold bathing 'reach the very soul of the animal, rendering it more lively and brisk in all its operations.'"

Editorial Department.

KENTUCKY MEDICAL SOCIETY.

We had not the pleasure of being present at the last meeting of the Medical Society of Kentucky, which we understand was one of perfect harmony and of great interest. We copy from the *Frankfort Commonwealth* the following:—

Official Report of the Proceedings of the Fourth Annual Meeting of the Kentucky State Medical Society, held in the City of Covington, on the 18th, 19th, and 20th of October, 1854.

The Society met in the Presbyterian Church, and was opened with prayer by Rev. Mr. Morrell. The President, Dr. Gross, called the meeting to order at 3 o'clock, P. M. The roll was called and the minutes of last meeting read and adopted.

The following gentlemen were proposed for membership:—W. D. Holt, T. N. Wise, J. T. Wise, R. H. Hunt, C. Y. Lee, Covington; A. H. Johns, Independence; J. J. Dulaney, Covington; N. B. Shaler, Newport; F. Major, Covington; G. W. Thornton, J. Q. A. Foster, W. J. Sloan, Newport; J. T. Smith, S. S. Scott, Florence; W. H. Curran, Claysville; C. C. Bryson, Independence; E. Richardson, Monticello; S. R. Owen, Somerset.

On motion, Dr. Lawson, of Cincinnati, who was present, was invited to a seat with the Society. On motion of Dr. Chambers, the Society adjourned for a few moments. When called to order, it proceeded to the election of the above named gentlemen. They were unanimously elected.

Special Reports.

The President called for reports from Special Committees, when Dr. Chipley handed in a report from Dr. Darby, of Lexington, Chairman of the Committee on the use of cold water as a Thera-

peutic agent in the treatment of disease. It was, on motion, laid on the table for the present.

Dr. DARBY, at the same time, presented to the Society some pure vaccine virus, lately obtained by him from London, with printed directions for the proper method of using it; also, a request that it should be distributed in the cities of Louisville, Maysville, and Covington. The Society returned thanks for the present.

Dr. REEVES, of Cincinnati, being present was invited to a seat with, and to participate in the deliberations of the Society.

Dr. C. J. BLACKBURN, of Covington, by a dispensation of the rules of the Society, was unanimously elected a member.

The Society then adjourned to meet again at 7 o'clock, P. M., at the Methodist Episcopal Church to hear the Annual Address of the President.

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7 O'CLOCK, P. M.

The Society met according to adjournment, when the President proceeded to read the Annual Address; which on motion was received and referred to the Committee on Publication.

The Society then adjourned till to-morrow at 10 o'clock, A. M.

The address was listened to with marked attention by the audience, and the speaker succeeded in making a highly favorable impression in favor of the Society. The discourse commenced with a sketch of medical societies in Europe and in this country. Interesting statistics in relation to the importance of sanatory regulations, were introduced, and a recommendation that the Society should use its influence with the Legislature to procure a sanatory survey of the State. He also adverted to the importance of making some effort to obtain the appointment of medical men to assist in the examination of medical witnesses, in trials where skill in the profession would promote the ends of justice. In relation to the evils of quackery, which subsidized the press, the bar, and even the pulpit, to certify the wonders of its agency, it was neither to be put down by the medical press nor public discussion. The only remedy was to let it alone, and by the regular profession persevering in their devotion to the sick, and by the observance of their rights and privileges, and the purity of their objects. He

also adverted to the rates of remuneration received by medical men, and inculcated attention to their pecuniary interests. Gratuitous services to the clergy he protested against as wrong in principle. If it originated in a love of charity, it might be tolerated, but with real charity and good feeling it had not the slightest sympathy. The importance of embodying the results of their experience in written productions which could be afterwards published for the benefit of the Society, the subject of epidemic disease, and a few appropriate remarks upon the death of one of the members of the Society, Dr. E. C. Drane, of Newcastle, closed the interesting address.

SECOND DAY.

October 19, 1854.

The Society met according to adjournment; the President in the chair. The minutes of the previous meeting read and adopted.

The Committee on Nominations reported the following as candidates for officers of the Society for the next year:

President.—Dr. C. H. Spillman, Harrodsburg.

Senior Vice President.—Dr. A. Evans, Covington.

Junion Vice President.—Dr. D. D. Thomson, Louisville.

Treasurer.—Dr. B. M. Wible, Louisville.

Recording Secretary.—Dr. W. C. Sneed, Frankfort.

Corresponding Secretary.—R. J. Breckinridge, Louisville.

Librarian.—Dr. J. M. Mills, Frankfort.

Committee of Publication.—T. S. Bell, T. G. Richardson, Jno. Bartlett, Louisville.

The report was received, and the committee discharged.

The following gentlemen were proposed for membership: Dr. P. L. Reddick, Newport; Dr. Downard, Independence.

The Society adjourned for a short time, and after being called to order proceeded to elect the above named candidates.

The President called for reports from Special Committees, whereupon one on Typhoid Fever, by Dr. Smith, of Danville, was handed in, and on motion laid on the table for the present.

Dr. Spillman, Chairman of the Committee on Mal-Practice, then read his report, which was received and referred to the Committee on Publication.

The following is a brief abstract of the report:

After some apologetic introductory remarks, it went on to say that "so unsettled and indeterminate are the premises, and so constant the alteration of lights and shadows in the field of medico-legal science, that the conclusions attainable in the present state of our knowledge are necessarily, to some extent, inconclusive and unsatisfactory."

Adverting to the antiquity of medical science, the report continued: "I would not disguise the fact that during the last half century, the relative position of our profession to the public has undergone a marked change. Implicit confidence, amounting in some instances to blind credulity, has given place to wide-spread skepticism as to the powers and capabilities of the healing art. For this, our profession is, in part, responsible, but not mainly so. The rage for speculation and theorising has had this tendency, when observation and experience have been neglected. Disparaging remarks about one member of the profession by another has the effect.

One of the principal causes of this skepticism, over which the profession can have no control, are want of information among the masses, relative to medical science, and a misconception of its powers leading to undue expectations. To remedy this want of information, medical statistics should be thrown broadcast over the land. Another reason for this skepticism is the apparent contrariety in the doctrines and practices of its different members. There may be apparent discrepancy, yet harmony in result; thus the lancet depletes, purgatives deplete, emetics deplete, and diaphoretics deplete."

Having thus reviewed the relations of the medical profession to the public, the report went on to show to what extent the former should be responsible to the civil tribunals.

In all cases a legal arbiter should be thoroughly acquainted with the subject matter of the offense. Generally, judge, jury and witnesses, in trials for mal-practice are profoundly ignorant of medical science. The physician should be amenable to law, but such judicial regulations should be adopted as will rescue the profession from the hazard of having its members subjected to citation and trial before a tribunal ignorant of the matter in controversy.

The remedy lies in a legal enactment that physicians charged with mal-practice, shall be tried by a jury of their peers, *i. e.* Doctors. A number of cases, showing in a strong light the necessity for this regulation, were stated in the report, and the danger of present modes driving good men from the profession, was urged. The report next discussed the character of those whose conduct should be regarded as a subject for adjudication. There should be an intent to do injury.

The want of skill goes to show such intent, or at least recklessness, and hence mal-practice may be, 1st. reckless, 2nd. willful, 3rd. negligent, 4th. ignorant. Each of these topics being minutely examined, and also under the last, mal-practice through intoxication, criticised, the report concluded with a brief and clear *resumé* of the train of argument.

ELECTION OF OFFICERS.

After the reading of Dr. SPILLMAN's report, the Society went into the election of officers. Dr. SPILLMAN having no opposition, was declared unanimously elected President for the ensuing year, and after being conducted to the chair returned thanks for the honor conferred in a few appropriate remarks.

On motion of Dr. HAWKINS, the rules were dispensed with and all the other candidates voted for at once. There being no opposition, the candidates nominated by the convention were all unanimously elected.

Dr. GROSS offered the following as an amendment to the constitution, which lies over for one day:

Resolved, That the Kentucky State Medical Society shall hereafter hold its annual meetings in the City of Frankfort on the first Wednesday in February of each year.

Dr BRADFORD, Chairman of the Committee on Ovariotomy, asked and obtained further time, until the next annual meeting, to make his report; when on motion, the Society adjourned until 2 o'clock, P. M.

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2 O'CLOCK, P. M.

The Society was called to order by the President at the appointed hour. Dr. B. W. SOUTHGATE, of Boone county, and Dr. J. N. HUGHES, of Louisville, were proposed for membership; and after the usual course, were elected.

Further reports from Special Committees were called for, when Dr. BRECKINRIDGE, Chairman of the Committee on Medical Biography explained that he had made every effort to get his report ready for the present meeting, but owing to the difficulty of obtaining materials, he was compelled to ask further time, which was granted, with the assurance from Dr. B. that he would be ready at the next annual meeting.

Dr. CHAMBERS obtained further time to make his report on substitutes for quinine.

Dr. DARBY'S report "on cold water as a therapeutic agent," was called for and read to the Society by Dr. BRECKENRIDGE. The report was received and referred to the Committee on Publication.

The following is a brief abstract of the report:

THERAPEUTIC AGENT.

Dr. B. commenced by stating the circumstances that first directed his attention thereto. He had read, on this subject, an essay by Dr. Cooke, and Currie's Medical Reports. The latter contains the testimony of Dr. Wright in favor of cold water in the treatment even of malignant fevers. In 1777 cold water was recommended by an English physician of high standing, and perhaps at a still earlier date. It is a powerful remedy, whose effects can be more readily determined than any other.

Dr. Cooks states that it was used both by Galen and Hippocrates. Dr. Forbes has written ably and lengthily in its favor. These facts are noticed to show that hydropathy did not originate with Presnitz, but was used by the regular faculty in conjunction with medicines.

The report stated in strong terms the efficacy of the cold dash, and the sufferings of patients burning up with fever, as described by M. Louis, and to whom water is refused.

Dr. Gregory tried the use of water in scarlet fever when his own children were attacked, and found it most effectual in conquering the disease. Why is not Dr. Gregory as good authority for the use of cold water, as on any other point? The object of this report is stated to be the re-introduction of the old practice of using water as a remedial agent.

The report concluded by describing a great number of cases in Dr. DARBY'S practice, where water had been used with the greatest advantage.

Dr. SMITH's report on Typhoid Fever was then read by Dr. BRECKINRIDGE; received and referred to the Committee on Publication.

Dr. SMITH commenced by remarking that the history, the diagnosis, and the other aspects of his subjects were ably and fully laid down in many medical works, and a repetition thereof would be a work of supererogation. His own observation of the disease had been limited, especially of typhus, and there was already an abundance of medical speculation upon other people's investigations, and lastly, it would be improper for him to discuss the epidemic character of typhoid fever, as this was specially the province of the Committee on Epidemics; he would therefore confine himself to making a few practical remarks and suggestions.

1st. I have found the first or onset symptoms, with but little variation, to be the same as those of all other eruptive affections, and often precisely the same as those of a bilious attack, and, therefore no one can certainly tell the nature of the disease simply from the symptoms at the onset. One may guess from the fact of the disease being in the neighborhood.

2d. I have always observed something like a regular remission, generally in the latter part of the night.

3d. I have for several years, invariably directed the use of stimulants during the remissions. Liking the effect of alcoholic stimulants better than quinine.

4th. The danger in the disease is generally proportioned to the frequency of the pulse.

5th. Patients generally, with a dry warm skin, were less dangerous than when there is a constitutional tendency to perspiration.

6th. Constant high fever is less dangerous than a congestive tendency.

I have generally followed the expectant plan, meeting the indications general or local, as they came up.

The report concluded by suggesting the importance of an accurate and thorough chemical analysis of the four great secretions and excretions thrown off by the kidneys, bowels, lungs, and skin, during the progress of fever, cholera, pneumonia, and other diseases, and expressing the belief that by this, physicians would be enabled to practice with more confidence.

There being no further reports from Special Committees, reports from Standing Committees were called for. There being no reports from these Committees, the Society proceeded to the transaction of miscellaneous business.

The first in order was the election of members to the American Medical Association.

The following gentlemen were put in nomination and elected: Dr. Bradford, Augusta; Dr. Chipley, Lexington; Dr. Shaler, Newport; Dr. Pretlow, Covington; Dr. Forsythe, Louisville; Dr. Darby, Lexington; Dr. Wible, Louisville; Dr. Southgate, Boone county; Dr. Thompson, Louisville; Dr. Jo. Smith, Danville; Dr. T. N. Wise, Covington.

The following gentlemen were elected honorary members of the Society: Dr. Cartwright, New Orleans; Dr. B. Welford, Virginia; Dr. L. C. Reeves, Cincinnati.

And then the Society adjourned until 10 o'clock to-morrow morning.

THIRD DAY.

October 20, 1854.

The Society met pursuant to adjournment, the President in the chair.

The reading of the minutes of Thursday's proceedings were dispensed with.

Dr. Wible, Chairman of the Special Committee, appointed to memorialize the State Legislature, upon the subject of medical attendance at Coroner's inquests, and certain other grievances suffered by the profession, asked further time to present his memorial. This was granted.

Dr. Chambers asked further time to present a memorial upon the subject of patent medicines, and it was granted.

A letter from Dr. Sutton was received and read to the Society.

Dr. Chambers presented the following:

Resolved, That a Committee be appointed, whose duty it shall be to call the attention of the next Legislature, to a consideration of what is due to the State in a sanatory point of view, and they be instructed to propose a circular upon the subject, and transmit a copy of it to each Senator and Representative immediately after the next August election, and that said Committee be further

instructed to press again upon the Legislature, the propriety of aiding in the publication of the transactions of this Society.

This resolution, after discussion, was adopted, and the President authorized to appoint the Committee with the other Special Committees.

Dr. CHAMBERS offered a resolution that all Special Committees not reporting, or asking further time at the present session, be discontinued and the Chairman of Standing Committees be changed, as the President may see proper.

Dr. WISE objected that persons appointed on some Committees had made some preparations to report, but were prevented from being present at this time. He thought it would be more harmonious to let them remain. He stated that persons presenting excuses should be continued.

Dr. WIBLE amended the resolution to say that persons excusing themselves shall be continued.

Dr. THOMPSON explained the resolution as virtually including the amendment.

Several other gentlemen spoke, after which the resolutions were adopted.

Dr. CHAMBERS moved the appointment of a Committee on Special Committees.

A resolution to that effect was passed, and Messrs. CHAMBERS, WIBLE, and PRETLOW, appointed on said Committee.

A letter was read from Dr. D. J. AYRES, regretting that a death in his family prevented his being present, and on motion, it was ordered on file.

The resolution amending the constitution so far as to determine on holding the sessions of the Society permanently in Frankfort, on the first Wednesday in February, of each year, was taken up, and after being discussed and amended so far as simply to declare that the next session of the Society should be held at that place on the first Wednesday of February, 1856, was passed.

On motion, Drs. WM. TIBBATTS and E. L. GRANT were admitted to membership.

On motion of Dr. THOMPSON, it was ordered that the Secretary should send an abstract of the doings of this session to the Medical Journal, at Louisville, for publication.

The Committee on Special Committees, reported and were discharged.

The settlement of sundry claims for and against the Society, was discussed, and a Committee appointed to audit them.

The following Committees were appointed for the ensuing year:

STANDING COMMITTEES.

Arrangements.—Dr. Sneed.

Public Hygiene.—Dr. Thornton.

Vital Statistics.—Dr. John Swain.

Epidemics.—Dr. Chambers.

Obstetrics.—Dr. Letcher.

Improvements in Practical Medicine.—Dr. Moore.

Improvements in Surgery.—Dr. E. L. Dudley.

Improvements in Pharmacy.—Dr. Mills.

Improvements in Botany.—Dr. Emmert.

Finance.—Dr. Hewett.

Publication.—Drs. Bell, Bartlett, and T. G. Richardson.

SPECIAL COMMITTEES.

Medical Biography.—Dr. R. S. Breckinridge.

Relations between Disease and Particular Geological Formations.—Dr. Peter Lexington.

Statistics of Lithotomy and Calculous Diseases.—Dr. Gross.

Results of Surgical Operations on Malignant Diseases.—Dr. Colescott.

Epidemic Dysentery.—Dr. Patterson.

Typhoid Fever.—Dr. Southgate.

Placenta Prævia.—Dr. H. Miller.

Scarlatina.—Dr. Hawkins.

Ovariotomy.—Dr. Bradford.

Inflammation and Ulceration of the Uterus.—Dr. Foster.

Physiological and Morbid Effects of Alcoholic drinks.—Dr. Duke.

Injuries of the Skull and Brain.—Dr. Hardin.

Anesthetics.—Dr. B. Pretlow.

Nervous Irritation.—Dr. B. M. Wible.

Plan to enable Physicians with more ease and certainty to collect their Accounts.—Drs. J. N. Hughes, and R. J. Breckinridge.

Intermittent Diseases.—Dr. L. G. Ray.

Remedies for Tubercular Diseases.—Dr. T. N. Wise.

On motion, the Society adjourned temporarily, and after being called to orded, elected Drs. TIBBATTS and GRANT members, who had been previously nominated.

Dr. THOMPSON presented bills from Webb & Levering, of Louisville, for printing proceedings of second annual meeting; which bills, being a small balance, were referred to a Select Committee consisting of Drs. Thompson and Wible. A bill from the office of the *Louisville Democrat* for publishing notice of second meeting was referred to the same committee.

The Society then adjourned to meet at 3 o'clock, P. M.

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3 O'CLOCK, P. M.

The Society met according to adjournment.

On motion, ordered that the committee to memorialize the Legislature on a sanitory survey of the State shall consist of seven members, as follows: Dr. Sutton, Georgetown; Dr. Chipley, Lexington; Dr. Sneed, Frankfort; Dr. Bell, Louisville; Dr. Chambers, Covington; Dr. Duke, Maysville; Dr. Smith, Danville.

On motion, the Secretary was directed to have the proceedings of this meeting published in the *Frankfort Commonwealth*, at the expense of the Society, and to send a copy to each member.

A resolution of thanks was passed to the members of the Fourth Presbyterian church, for the use of the church during the session of the Society.

A resolution of thanks was also tendered to the Trustees of the Methodist Episcopal church for the use thereof, for the delivery of the annual address.

Thanks were also tendered to the citizens and physicians of Covington, for kind entertainment, and to Dr. PRETLOW, of the Committee of Arrangements, for his services.

The Society then adjourned to meet at the banquet in the evening, and in the city of Frankfort on the first Wednesday in February, 1856.

C. H. SPILLMAN, *President.*

W. C. SNEED, *Secretary.*

NOTE.—If the members of the Society will forward the amount of their respective dues to the Secretary, at Frankfort, or the Treasurer, Dr. WIBLE, at Louisville, the Committee of Publication will be able, with the aid expected from individual members of the Society, to publish the proceedings of the two last meetings in the course of a very short time.

W. C. SNEED, *Secretary.*

HEALTH OF LOUISVILLE.

UP to this period the frosts are still delayed. The thermometer has not yet fallen below 38° in the city. The autumn has been one of the most delightful ever experienced in a region where autumn is proverbial for its delights. The city has continued healthy. Some cases of cholera were reported a few days since, but they were few in number, and all occurred within a very limited district in the upper end of the city, and within a few hours of each other. No cases have been reported since, and no apprehension of the spread of the disease was excited among the citizens.

PROF. SMITH'S LABORATORY.

Professor J. LAWRENCE SMITH has fitted up in this city, at his own expense, a laboratory of research, and his advertisement will be found upon the cover of this journal. Such a laboratory has been very much needed in Louisville, and we are confident Prof. Smith will soon have as much work in the shape of assays and analyses as he can find time to accomplish. We need hardly inform our readers that he has had great experience in this department of science, and that those who engage his services will find him in his investigations thorough, accurate, and reliable. He offers also to instruct a few students in chemical manipulation and analysis. The opportunity is a favorable one for those who wish to make themselves practical chemists, and the number of such, considering the demand for teachers of chemistry in our country, ought not to be inconsiderable.

PROF. SANFORD B. HUNT.

We are glad to see that Dr. SANFORD B. HUNT, junior editor of the *Buffalo Medical Journal*, has been elected professor of Anatomy in the University of Buffalo. Dr. HUNT gives promise of attaining to great eminence in his profession, and the trustees of the Medical School of Buffalo have shown by his appointment a just appreciation of talents and industry. Among all the medical editors of our country we are not acquainted with one more laborious or judicious than Dr. HUNT, and in addition to his numerous contributions to his own Journal, he has been one of the correspondents of *Putnam's Magazine*.

PROFESSOR GIBSON.

It has been stated in several Medical Journals that Prof. GIBSON had resigned the chair of Surgery in the University of Pennsylvania. We learn that this announcement is premature. No change has taken place in the Faculty of that School since the close of the last session.

DEATH OF AMERICAN PHYSICIANS.

We regret to announce the death of two eminent members of our profession within a brief space. Dr. WALDO I. BURNETT, the distinguished microscopist, died, in Boston, a few weeks since, and we have received the intelligence of the death of Dr. SWETT, in New York. Dr. SWETT stood among the foremost in his profession, for his skill in pathology and physical diagnosis, and, like Dr. BURNETT, was known as an author, and admired for his pure devotion to science. The early death of these zealous cultivators of medical science is a public loss. They promised to shed lustre upon the medical profession of their country.

DR. A. P. ELSTON.

The profession in our city has lost an amiable and accomplished member in the death of Dr. A. P. Elston, which took place in this city, after a lingering illness, a few weeks since. The following proceedings commemorative of the melancholy event were handed us too late for insertion in our last number:

The physicians of Louisville having assembled at the office of Dr. Rudd, on the 6th inst., for the purpose of noticing, in a suitable manner, the recent death of their esteemed associate, Dr. Allen P. Elston; Dr. G. W. Smith was called to the chair, and Dr. Bartlett appointed Secretary; it was

Resolved, That we cherish, with fraternal gratification, a remembrance of the worthy ambition and high culture which promised so much in the earlier years of our friend's professional life, and lament that so many of the latter portion of them were rendered useless and disheartening to him in protracted disease.

Resolved, That while we commemorate his acknowledged merits as a practitioner of medicine, and his scrupulous observance of the principles which regulate honorable professional interconrse, we cannot forget his remarkable urbanity as a gentleman, and those estimable social qualities that rendered him a favorite in all circles of intelligent and polite society.

Resolved, That we sympathize with his family in their bereavement, and that we will unite with them in paying the last tribute of respect to his earthly remains by attending the funeral services.

DR. G. W. SMITH, *Chairman.*

Dr. John Bartlett, *Secretary.*

EVANSVILLE MEDICAL SCHOOL AND JOURNAL.

A letter received from a professor in the Evansville Medical School and one of the editors of the *Indiana Journal of Medicine*, announces that the Faculty have "suspended the College operations and abandoned the Journal."

Record of Medical Science.

On the use of Nitric Acid as an Anti-Periodic. By George Mendenhall, M. D., Professor of Obstetrics, &c., in the Miami Medical College of Cincinnati.—My attention has recently been called to the use of Nitric Acid in the treatment of intermittent fever; and as a substitute for quinine in this class of disease is a matter of some consequence on many accounts, I am induced to lay it before your readers that it may more fully undergo the ordeal of experience, and its true value be tested by different observers.

The facts upon which this paper is based, are taken mainly from an Inaugural Dissertation, presented to the Trustees and Faculty of the Miami Medical College, for the degree of Doctor of Medicine, by E. T. Bailey, M. D., of Emmetsville, Indiana.

He states, that in the section of country in which he resides, there is a large portion of marshy land, and therefore the circumstances are favorable to the development of autumnal fevers. His attention was first attached to the use of nitric acid in the treatment of intermtttent fevers, by noticing its effects in a case of chronic intermittent, which was attended with profuse night sweats, and for which complication he administered the remedy. In this case, there had been daily paroxysms for the preceding five days; night-sweats profuse, the tongue coated, and the bowels constipated. Nitric acid was given in doses of six drops, diluted with water, in the evening; and he was agreeably surprised to find that the paroxysms did not return on the following day; and this circumstance induced him to try its effects in other cases as an anti-periodic.

Since that time he has treated over ninety cases of intermittent fever with this article, with remarkable success. Of this number, all recovered promptly except ten, and in every one of these unsuccessful cases, the remedy was discontinued contrary to directions.

Fifteen of the whole number were of the tertian type, and seventy-five of the quotidian. In fifty cases, there was no return of the chill after commencing the use of the acid. The others were rarely attended by more than one paroxysm, and in no case by a third. When the patient had a paroxysm after taking the medicine, it was in every case diminished in intensity and duration.

In Dr. Bayley's practice, this remedy has entirely superseded every other article for the purpose of interrupting the paroxysms of intermittents. His mode of proceeding is to give from five to eight drops of the commercial nitric acid, properly diluted, once in six hours, without regard to intermissions or exacerbations. Cathartics and alterants may be necessary for the purpose of changing certain conditions of the system; but so far as the interruption of the paroxysms is concerned, the acid may be given without any preparation of the system whatever, if we choose to do so.

The following cases are selected from among many others, in order to show the different varieties of the disease, and the mode of treatment pursued:

Case I.—Mr. L. S., aged 55, of temperate habits, called upon him on the 12th of July, 1852. In May previous, he was attacked with intermittent fever, which was cured by quinine, but relapsed in six weeks, since which, the disease has continued with daily paroxysms. The tongue was furred, and the bowels constipated. A purgative of calomel and rhubarb was ordered at bed time. A violent fever followed the chill, which occurred at 11 o'clock, A. M., of this day. Five drops of nitric acid was directed to be taken every six hours, diluted so as to make a pleasant drink, to be commenced on the following morning, the 13th. The calomel and rhubarb produced two copious operations from the bowels, prior to commencing the nitric acid. Three hours after the exhibition of the remedy at 6 o'clock, as directed, a chill came on, followed by a high fever. The medicine was continued through the day.

14th. The patient is free from a paroxysm, no fever; the tongue clean and moist; and the medicine was directed to be continued as before.

15th. The tongue improving; bowels regular, and pulse very little excited; no chill. Medicine continued.

16th. Patient has entirely recovered.

Forty-five drops only were taken in this case, as the medicine was not given at night.

Case II.—Sept. 10th, 1852, was called to see Master L. A., aged six years. He has had intermittent fever since the 6th inst., with daily paroxyms, followed by high fever. The tongue was moist, and the bowels open. Four drops of nitric acid were ordered, which was diluted as before, so as to be easily taken; one dose to be taken at 12 o'clock, and the second at 6 in the evening; to be resumed at 6 the following morning, and repeated at 12 o'clock.

11th. Visited the patient in the afternoon. He had not had

any chill; the tongue was clean and skin moist, with no excitement of the pulse. Discharged cured.

In this case, the medicine was discontinued to see whether the effect would be permanent.

12th. No return of the paroxysm. Sixteen drops were taken in this case.

Case III.—Sept 20th, 1853. Saw Miss D. N., aged 28. Three days ago, she was attacked with intermittent fever, the paroxysms of which commenced at 10 o'clock every day, and the chill was followed by high fever. A mild purgative was ordered at bed time; and sixty drops of nitric acid were diluted with two ounces of water, and directed to be taken in nine doses, at the rate of three doses per day, commencing on the morning of the 21st.

25th. Saw the patient to-day, and found that there had been no return of the paroxysms for three days. In this case, sixty drops were taken.

Several other cases are reported with the same result, but it is not necessary to repeat them here.

It is stated that relapses seldom occur—much less frequently than after the use of quinine, but upon this point more precision is required. It has been administered in all the various forms of intermittent fever which were presented to the author of the essay, and no unpleasant effects observed in any case. Should they be verified by the experience of others, this remedy will be found to be a valuable agent, and to possess the following advantages:

First. Certainly as an Anti-Periodic. *Second.* The power of invigorating the general system, while at the same time it has alterant properties. *Third.* Facility of exhibition, being much easier taken than quinine, barks, &c. *Fourth.* Freedom from the unpleasant effects which sometimes follow these remedies. *Fifth.* Cheapness of the article, which is often of considerable importance in miasmatic regions.—*West. Lancet.*

On Constipation. By Professor Trousseau.—Constipation should be defined, a difficulty in the execution of the fœcal matters, independent of any organic lesion. We should not rank among the constipated those in whom defecation is impeded by a tumor or hernia, or invagination, or other mechanical obstacle. Simple constipation is nothing more than absence of alvine evacuations.

Such a condition may depend on many causes. First, there is a sort of phisiological constipation, connected with the constitution of the patient; an individual eats but little, and is endowed with great powers of assimilation. The quantity of excrementitious matters, in such a case, are insufficient to stimulate the in

testine. These matters are accordingly retained until they accumulate, and their retention produces uneasiness. There are others, however, who eat largely and assimilate no better than their neighbors, whose intestines are consequently filled with fœcal matters, and still there is no regularity in the dejections. Such individuals suffer from continual malaise; they are in a state of constant discomfort; the want of proper alvine evacuations causes them real suffering.

Defecation, the last stage of digestion, is one of the most complex functions of the economy, and is deranged by a multitude of circumstances. The causes of constipation are numerous, therefore, but the most important are intestine inertia, and the faulty secretion of certain glands. Different secretions predominate in different individuals. One perspires freely, and urinates but little, and secretes but little saliva. The habit of another is the reverse of this; the secerning functions are complementary, as it were, to one another. It is probable that the liver and pancreas also obey this law, and that they are affected by the excessive action of other glands. However hypothetical this proposition may appear, it is as admissible as many others which are received in medicine. It is as rational to suspect the liver and pancreas, when there is a want of lubrification of the bowels, as to suspect the kidneys when there is some derangement of the urine.

Among the causes of constipation, we must examine particularly into the influence of diet, of habit, of senile debility, of diseases foreign to the intestines, and of the abuse of purgatives.

As we have already observed, some individuals eat so little, that the unassimilable matters are insufficient to furnish regular dejections. There are some kinds of food which cause the same result; which are digested with such facility that the fœcal residue amounts to nothing. Rice, for example, disappears almost entirely in digestion, and it is this property which renders it such an appropriate article of nutriment in cases of diarrhœa. Vegetable diet is the least nutricious, and produces the most copious stools. To be convinced of this fact, it is only necessary to compare the dejections of herbiverous and carnivorous animals.

To a certain point, it may be said. that we evacuate the bowels when we wish to do so, only the will must be exercised. If we surmount this inclination to perform this function, it subsides, and may not return for many days. In this way a kind of constipation is produced, which is not the least obstinate or the easiest to cure. It is in this way that so many women, who are prevented from obeying the calls of nature by foolish scruples, and men of letters who are absent-minded or preoccupied, become obstinately constipated.

Purgatives, pills, and powders, irritant enemata and even injections of cold water, and evacuants of all sorts, even when they

do not induce a plegmasia of the intestinal canal, deprive it of its normal irritability; it becomes insensible to the simple stimulation which once sufficed to produce the evacuation of the fœcal matters. As tobacco, after provoking an abundant secretion of mucus or saliva by a surexcitation of the glands of the nose and mouth, enfeebles in reality the natural secretion, which diminishes notably when the stimulus is withdrawn, so habitual enemata prevent the intestine from acting by itself, by lowering its excitability. This cause of constipation is very frequent in fashionable women, who early acquire the habit of relieving the bowels by an enema in order to feel unembarrassed during the day. They soon lose the habit of evacuating the bowels naturally, and are forced to have recourse to other remedies of still greater energy.

Child-birth, certain uterine displacements, fissures of the anus, and hemorrhoids, render defecation very painful. Patients in these conditions put off the moment of evacuating the bowels, and induce a secondary constipation, which does not always cease when the cause which produced it is removed.

After several labors, sometimes after one only, the anterior abdominal wall becomes so flaccid and relaxed that it no longer contracts; the intestines are thus deprived of a powerful auxiliary and lose their tonicity.

Age, which impairs all the faculties and all the organic functions, does not spare the intestinal apparatus. Defecation is ill performed in the aged, like digestion and micturition, and retention of the fœces supervenes, without organic disease of the rectum, as retention of urine takes place without organic alteration of the bladder. The intestine undergoes a sort of senile paralysis. It no longer contracts on the excrementitial bolus; it is powerless to expel to expel it; enormous agglomerations of fœces are formed, and dilatations are made above the sphincter ani, which sometimes give rise to grave complications in the operation of lithotomy.

Constipation is a serious disease, and deserves great attention; for even supposing that it is not dangerous in itself, it always complicates the slightest ailment, and frequently lays the foundation of an hypochondria which involves life in numberless disorders.

The treatment should above all be directed to the removal of causes. It must not be thought that constipation is cured when an evacuation is procured; this would be as false as to imagine that a person is cured of wakefulness when he obtains sleep by opiates. We should seek not only to obtain relief for the moment, but regularity in the future. Constipation is not to be cured by Seidlitz powders or other purgatives, which, in the end, only increase it.

In the first place it is necessary to regulate the function; we should do everything to subject it to the empire of the will. We know how great is the power of habit over organic functions. When once accustomed to operate in a certain way, at certain hours, they have a strong tendency to continue to act thus. The habit of going to the privy is like the habit of urinating at certain periods, the habit of shaving, and of washing the face; when once these habits are established, they cannot be dispensed with. A constipated person should visit the water-closet at a convenient hour, he should remain sometime, concentrating all his attention, all his will, all his contractile powers, on the act in question; he should make reiterated and energetic efforts to accomplish it. Whatever the result, he should return at the same hour on the morrow, and if, in the interval, a desire to go to stool is felt, it should be resisted, and the closet should be visited only at the hour chosen.

The diet should be altered. Instead of the abstemious diet often adopted by patients, they should be ordered abundant and nutritious food, of a kind which will at the same time promote digestion and leave a voluminous residue which will force the intestine to disembarrass itself. This disease, we have said, causes numerous disorders. Constipated persons always have oppression of the stomach and head-ache, for which they are ordered a light diet, white meats in small quantity, little wine, etc. This is an error. They should be desired to eat largely of roast meats. They should be compelled to eat, and reminded that, according to the English expression, one leg of mutton follows another.

But sometimes it is necessary to assist the will by an adjuvant, to facilitate an act, the habit of which is lost, as it were. We must beware of purgatives, but yet some medicine is necessary to assist defecation. Belladonna is this remedy *par excellence*. It does not purge; it only facilitates alvine evacuation. To what does it owe this property? It is difficult to say. Perhaps, as opium excites the cutaneous secretion and digitalis that of the urine, so belladonna may influence the liver, pancreas, or other glands opening on the intestinal tract. What is certain, however, is that the fifth of a grain of belladonna almost always procures several alvine evacuations. The dose may be increased to one grain, but as soon as the habit of defecation is restored, the dose of belladonna must be diminished and gradually abandoned.

Suppositories are much used, and commonly succeed well. Country people employ the middle stock of the cabbage; physicians make them of hardened honey or cocoa.

Lastly, if constipation is connected with flaccidity of abdominal walls, we must have recourse to a tight abdominal bandage, which will confine the intestines normally, and enable them to contract. —*Gazette des Hopitaux.*—*Virg. Med. and Surg. Journal.*

Rape on an Idiot.—In the Court of Common Pleas of Athens County, Ohio. March Term, 1853. Before Mr. Justice Nash.

State of Ohio against John Crow.

A female *idiot*, or an *insane female*, may be the subject of a rape.

An assault with an intent to commit a rape may be committed on the person of an insane female, or a female idiot.

The crime of having carnal knowledge of an insane female, knowing her to be such, is consummated when the act is done knowingly with her acquiescence or consent.

The word insane in the sixth section of the act for the punishment of crimes, Curren's *Revised Statutes*, pp. 184, 185, is used in its elementary and popular meaning, unsoundness of mind; and hence embraces the case of one's having carnal knowledge of a female idiot, knowing her to be such.

The defendant was indicted: 1, for having committed a rape on the person of Louisa Dowler; 2, for an assault with intent to commit a rape on the said Louisa; and 3, for having had carnal knowledge, she, said Louisa, being an insane woman, and he, said defendant, knowing her to be such. The defendant pleaded not guilty, and the cause was tried by a jury at the last March Term of the Common Pleas.

The evidence on the trial proved that said Louisa Dowler was of unsound mind, and had been so from her nativity: though she was not so absolutely destitute of mind that she did not perform the necessary functions and calls of humanity; but that she had not mind enough to testify as a witness, or to be held legally responsible for her acts, whether civil or criminal.

The words of the statute are: "That if any male person, seventeen years old and upwards, shall have carnal knowledge of any other woman than his wife, such woman being insane, he knowing her to be such, every person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be imprisoned in the penitentiary, and kept at hard labor not more than ten, nor less than three years."

Mr. *Kowles* for the State.

Messrs *Nye* and *Jewett* for the defendant, claimed that the said Louisa, being an idiot, had no will, and, therefore, that a rape could not be committed on her person against her will; it was further claimed, that the word insane, in the sixth section of the act, did not embrace an idiot; and hence, that the defendant could be convicted of neither of the charges embraced in the indictment.

Mr. Justice Nash. It is claimed, *first*, that a female idiot is not the subject of a rape; that she has no will, and hence, an act

cannot be done to her person against her will. No authorities are cited for this startling position. On looking into the books, I can find no such distinction intimated; and, if such was the law, it is singular that so important a qualification of the crime of rape should not have been noticed hitherto in any treatise on this subject. Rape is defined to be, the having carnal knowledge of a female, *forcibly and against her will*. There is here no limit to the use of the word female; nothing said as to the soundness or unsoundness of her mind, as to idiocy or insanity. In this respect our statute follows the common law; and must, therefore, be construed as the same words were construed in the definition of the crime at common law.

There is another consideration not to be overlooked. The section providing for punishing assaults with a criminal intent, declares that an assault committed on another, with the intent to commit a rape, shall be criminal. Now, if a rape cannot be committed on the person of an idiot, then it is no crime to assault her person with such an intent. The same question applies also to assaults committed on an insane person; since this argument places them without the protection of the law, punishing the crime of rape. Nor are insane persons protected under the sixth section, since the crime there described is committed only when the perpetrator knows the woman to be insane. Indeed, that section is clearly limited to the case of a male person's knowingly having sexual knowledge of an insane female without resistance on her part, and with her acquiescence. Hence this section cannot be made to embrace the case of one having such sexual intercourse forcibly and against the will or resistance of such insane female.

It is further claimed that an idiot is not an insane person under the meaning of that term in the sixth section. This result then follows, that a female idiot is left wholly unprotected against this class of crimes. A person cannot be punished for having carnal knowledge of her person forcibly and against her will, as she has no will to overcome; she is not an insane person, and so not under the protection of the sixth section, and neither an idiot nor an insane female is protected against the assaults made with an intent to commit a rape, since a rape cannot be committed on the person of either.

It must require some very cogent reasoning, or some very convincing authorities, before the court could be induced to give a construction to a statute which must lead to such results. But here is no such authority; no such decision has been found. Is there any more force in this reasoning? Let us examine it for a moment.

In the first place, where the carnal knowledge is had by *force*,

it must be against the will of the female. Nor need there be any direct evidence of this action of the will; the law implies the want of consent from the force itself. It is the *consent* of the female which takes away all criminality from this connection; it is this want of consent which renders this connection obtained by force, criminal. Hence, if an idiot has no will to be overcome, she has none to consent; and the law implies that the act being accomplished by force, is done against her will.

But is it true that an idiot or insane person has no will? What is the definition of these two words? Do they imply the *loss* of *will*, or a mere *unsoundness* of mind? These words are thus defined by Webster: "Idiot—a natural fool, a fool from birth; a human being in form, but destitute of reason or the ordinary intellectual powers of man. Insane, unsound in mind or intellect; mad; deranged in mind;" and one of the words used to define *insanely* is *foolishly*. Fool is defined to be one who is destitute of reason, or the common powers of understanding; an idiot. Some persons are born *fools*, and are called *natural fools;* others may become *fools* by some injury done to the brain. In Chitty's *Medical Jurisprudence*, p. 348, "an idiot is defined to be a person who has been *defective* in intellectual powers from the instant of his birth, or at least before his mind had received the impression of any idea." Again, Chitty says, "that idiocy consists in a defect or sterility of the intellectual powers; but it may be induced in after life; while lunacy and madness consists in a *perversion* of intellect." All these definitions imply either a *weakness*, or *perversion* of the mind, or its powers, not their *destruction*. The powers are still all present, but in an impaired and weakened state. Hence, an idiot cannot be said to have no *will*, but a *will weakened* and *impaired*—a will acting, but not acting in conformity to those rules, and motives, and views, which control the action of the will in persons of sound mind. Indeed, in an insane person, the will is often too fearfully active, and wholly uncontrollable by reason or persuasion. There is here no lack of will, but simply a *perversion* of it. Nor is this the most conclusive answer to this argument. If there is no will how are the voluntary actions continued? Actions, which, like respiration, are instinctive, are independent of the will; but eating, and numerous other acts, which necessarily imply the exercise of the will, are performed by idiots and insane persons; and their exercise demonstrates the existence of a will; of a will which can assent to, or dissent from, what are clearly voluntary acts. I have, therefore, no hesitation in holding that both idiots and insane persons are possessed of a will, so that it may be legally and metaphysically said, that a carnal knowledge may be had of their persons *forcibly* and against their will.

The next inquiry is, what is the proper construction to be given to the word *insane?* In the sixth section of the act for the punishment of crimes, *Curren's Revised Statutes*, p. 184, that section provides: "That if any male person, seventeen years old and upward, shall have carnal knowledge of any woman other than his wife, such woman being *insane*, he knowing her to be such, shall be deemed guilty," &c. It is claimed that this word *insane* does not embrace a female who is an idiot. We have already seen that idiocy may be induced after infancy, as well as be congenital, Chitty's *Med. Jurisprudence*, p. 347, and that both terms are defined by the same words, *unsoundness of mind.* In the one case, this unsoundness of mind develops its existence in want of capacity to reason at all; or, at least, in a much less degree than the generality of mankind; while, in the other, there is, perhaps, greater acuteness, though upon false and fancied hypothesis, Chitty's *Med. Jurisprudence*, p. 348. Still, in both cases, unsoundness of mind is the cause. The very origin of the word *insane* demonstrates this; in its Latin origin, it is a word simply meaning *unsound*, and nothing more; and in the popular language it is used in this sense to this day, whatever may be the specific meaning attached to it by writers on mental diseases. If, then, the object and policy of this statute embraces idiots as well as lunatics, there is nothing in the use of the word *insane* which absolutely precludes us from giving that elementary meaning to the word in this statute. The reason of this provision clearly applies to idiots, as well as to lunatics; if there is any reason in the case of female lunatics, why sexual intercourse with them should be prohibited, equally strong is the reason why it should not be permitted with female idiots. If the offspring in the one case might be affected by insanity, so in the other it might be with idiocy. Whatever reason, therefore, can be found to call for the law in relation to female lunatics, will apply in any equally cogent manner to idiots. If the one class ought to be protected, equally so ought the other.

Such then being the manifest scope of the law, I can have no hesitation in concluding that such was the intention of the legislature; that this word *insane* was used in its elementary and popular meaning, as descriptive of that unsoundness of mind which renders individuals civilly and criminally irresponsible for their acts, whether that unsoundness discloses itself in idiocy or lunacy.

In accordance with these views, I hold that a female idiot or an insane female is the subject of a rape; and hence of an assault with the intent to commit that crime; and that a male person, of a proper age, who shall have carnal knowledge of a female idiot, knowing her to be such, is guilty under the sixth section of having carnal knowlege of an insane woman, knowing her to be such.

The jury were so charged, and they returned a verdict of guilty of an assault with an intent to commit a rape, and not guilty of on the other two counts. And sentence was passed on the prisoner.— *Western Law Journal*, vol. x. pp. 501–5. T. R. B.

Hemeralopia. By C. S. Fenner, M. D., of Memphis, Tenn.— June, 1847, a servant boy, a field hand, 24 years of age, was brought me with hemeralopia. During the day his sight was perfect with no abnormal appearance of the eye; the irides acting freely to the stimulus of light. On examining his eyes by candle light, the pupils were found to be as widely dilated as they usually are after the continued application of stramonium or belladonna. The lighted candle was brought within two or three inches of the eyes without producing the least contraction of the pupils or causing the slightest perception of light. He remained in this condition until sunrise the next morning, when his sight began to return, and in a few minutes became perfect, continuing so through the day. The same symptoms had recurred nightly for a month previous to my seeing him, without interfering with his field labors during the day. As there seemed to be a slight determination of blood to the head, with an unusual fulness of the pulse, I took a few ounces of blood from the arm, prescribed a mercurial carthartic, and applied a large blister to the back of the neck; and the next day gave ten grains of quinine. The second night the blindness returned at the usual time and continued some four or five hours; after midnight the patient was able to see distinctly by the light of the moon. Continued a succession of blisters to the temples and mastoid. The fourth night the loss of sight lasted about an hour, after which time there was no return of the disease, and at the end of the week the patient was discharged cured.

Since the above mentioned patient was treated, I have seen and been consulted in a considerable number of similar cases, all them occurring among negroes working in an extended range of prairie plantations, commencing in Pickens county, Alabama, and extending up through Noxubee, Lowndes, Oktibbeha and Monroe counties, Mississippi.

The disease makes its appearance almost invariably in the spring, or early in the summer months, before the young corn and cotton plants have attained sufficient size to shield the eye from the dazzling reflection of the sun's rays from innumerable small pieces of limestone, and fragments of shells that are thickly interspersed through the soil. These prairies constitute immense bodies of a peculiar black soil, lying on a strata of limestone. In many places the rock approaches the surface, and is entirely bare,

reflecting the sun so powerfully as to be almost insupportable to the eye. To a person standing in the middle of some of these large prairies, the horizon, in many directions, seems to meet the surface without a tree or shrub to obstruct the view. I attribute the frequent occurrence of night-blindness through this section of country, to the exhaustion of the nervous power of the retina from continued exposure day after day to the powerfully reflected solar rays, without having any objects, even at a distance, (particularly trees covered with green foliage,) to relieve the eye, by frequently looking up and bringing a change of scenery within the field of vision.

All the cases of hemeralopia that I have seen, have readily yielded to treatment similar to that pursued with the patient above mentioned. In a majority of instances bleeding is unnecessary. Counter irritation from a succession of blisters, and repose within doors for a few days, are usually all that is requisite to give entire relief. I have been informed of several cases that recovered after the lapse of a few months, without any treatment whatever; and, in no instance have I known any permanent injury to vision result from permitting the disease to take its own course. Cauterizing the margin of the cornea, with nitrate of silver, has been recommended in hemeralopia, but as this method of treatment is much more painful than blisters, and as the relief from the latter is speedy and effective, I give them the preference. —*New Orleans Med. and Surg. Journal.*

Iodine Injections in Leucorrhœa. By Dr. Russell.—It is not my design, in this communication, to enter into any theoretical inquiries respecting the nature of leucorrhœa, or the *modus operandi* of the remedy I propose for its cure; my object being simply to give the results of my experience in relation to iodine as a remedial agent in this obstinate, and in many cases intractable disease; and in doing which, I shall record facts, well assured that one well-attested fact contributes more to the advancement of the science of medicine than three-fourths of the theories to which the press has ever given publicity.

I consider this disease to consist in inflammation of the vagina or the internal cavity of the uterus, or of both; and in the majority of those cases which have continued for a number of years and resisted the ordinary modes of treatment, ulceration to a greater or less extent will generally be found to exist. For this condition, I have found no remedy equal to iodine; and, in illustration of its effects in my hands, I will briefly detail several cases from a number that have come under my observation:—

Case 1.—In July, 1848, I was requested, by Mr. W——, to visit Grace, a favorite mulatto servant, aged forty eight years, who he informed me, had leucorrhœa of twelve years' standing; had been under the care of a number of physicians during this period, and had been subjected to a great variety of treatment, but without avail. I found her confined to bed, very much debilitated and emaciated, face cadaverous, pulse quick and feeble, skin cool, urine scanty, severe pains in the lumbar and pelvic regions, and œdema of the lower extremities. The vaginal discharge, often escaping by gushes, was excessive, and her general health had become seriously involved from the effects of this long-continued drain to the constitution. Upon examination per vaginam, the vagina, os, and cervix uteri were found to be in a sub inflamed condition, and denuded of epithelium. The os was partially everted, and when deprived of its adherent mucus, presented a vermilion color. The external cervix was enlarged, indurated, and ulcerated. The body of the uterus was sensibly enlarged, and descended within two inches of the os externum. The secretions from these several parts varied essentially in character, and when discharged externally resembled somewhat, in quantity, consistence, and color, the yolk of an egg intermixed with purulent and sanguinolent matter, and all blended in a thick, opaque, tenacious plasma.

Ascertaining that she had never used iodine in any form, and believing it would afford her relief, I ordered the aqueous solution of the following strength to be thrown up the vagina twice daily, and retained several minutes, the parts being previously well syringed with warm water and castile soap, and the patient placed in a horizontal position, with the hips elevated:

℞. Iodini, gr. i; potass. iodid., gr. ii; aquæ pluvialis ℥i. M.

As this solution ceased to create any sensation of warmth or excitement in the parts, it was gradually increased to treble its strength. The muriated tincture of iron, in the proportion of twenty drops three times daily, was given as a tonic.

Under this treatment, with a nourishing diet, she soon began to improve; the irritated condition of the parts gradually subsided, the muco-purulent discharges by degrees ceased, the cervical ulcers regularly healed, and at the end of three months from its commencement, she had regained her health and strength to such an extent as to enable her to resume her occupation as cook to the family. I may add, that her mammæ, which was very small and flaccid, became full and enlarged while under the influence of this medicine, and for several weeks secreted rather copiously a brownish watery fluid. This secretion being tested with starch, produced the characteristic blue color, showing that the iodine was absorbed.

Case 2.—August, 1848. Mrs. W—— consulted me; she was aged nineteen years; small and delicate figure; had been married four years, and dates the commencement of her present "weakness" to an abortion which occurred about six months subsequent to her marriage. Prior to marriage was remarkably healthy and active. At the time I saw her, she was anemic and emaciated, countenance chlorotic, eyes sunken, pulse feeble, menstruation painful, and either scanty or profuse. The vaginal discharge was constant and copious, muco-purulent, slightly streaked with blood, and very offensive. An examination, with the speculum, revealed an irritated condition of the vagina, with relaxation and loss of its natural rugæ, and accompanied by a partial displacement of the uterus. The cervix was enlarged and indurated, with several ulcers upon its external surface. She had never submitted to medical advice, contenting herself with the use of some simple domestic remedies. Correcting the torpid condition of her liver by means of the usual remedies, I prescribed the aqueous solution of iodine and the muriated tincture of iron as above, recommending a nourishing diet, with free exercise in the open air.

She gradually improved under this plan of treatment, and in a few months her general health was re-established. She has, I understand, continued well ever since.

Case 3.—October, 1850. Mrs. G——, aged about twenty-seven years, large frame, mixed temperament, five years married, but has never been pregnant. Says that she was never "sick" previous to marriage, but subsequent thereto has always been in "delicate health." Has enlargement and induration of the liver and spleen, sequelæ of the intermittent fever, menstruation irregular and profuse. She was sallow and exsanguined, and exhibited in a great degree, that long train of symptoms consequent upon an obstinate and protracted leucorrhœa. The vaginal discharge was constant, but variable in quantity and quality. Occasionally it was thin and acrimonious, often viscid and scanty, but usually purulent or muco-purulent, and excessive. The cervix was soft and tender to the touch, and when seen by the speculum was found enlarged and presenting a dark greyish appearance. The os was patulous, with tumefied edges, and of a reddish tint. A slight abrasion was found on the posterior lip.

Astringent vaginal injections—as the nitras argenti, acetas plumbi, &c.,—were advised, and to relieve the enlarged and indurated condition of the liver and spleen, I prescribed the following:

℞. Prot. iod. mer. ℈i; pulv. aloes ℈iss; ext. hyoscyami ʒi. M. Div. in pilulæ xxiv. One pill to be taken every night; at the same time five drops of nitro-muriatic acid in a wine-glass full of the infusion of gentian, three times daily, was administered.

Under this treatment, the visceral derangements totally disappeared in about eight weeks, and her general health was greatly restored.

The leucorrhœa still continuing (no benefit having resulted from the use of astringent injections), and no amelioration in the condition of the parts being found on a second vaginal examination which was now made, I ordered the aqueous solution of iodine and the muriated tincture of iron as above recommended. In six weeks after using these remedies, she declared herself well; shortly afterwards became pregnant, and was in time delivered of a fine healthy child.

Other cases could be adduced to prove the remedial powers of iodine as a local remedy in leucorrhœa, but as they are somewhat similar to the above in all essential particulars, it is unnecessary to introduce them here. Regarding the disease as being essentially a local one, our mode of treatment is principally local, and applied by means of a proper syringe to the parts affected. The preparation should at first be made weak, and gradually strengthened as the parts become accustomed to its application. The mildest preparation is frequently disagreeable, and sometimes painful, but these sensations are only momentary.

We have used it varying in strength from one to four grains of iodine with double the quantity of the iodide of potash to an ounce of water. It may be applied once or twice a day, or once every second or third day, as occasion may require. In some of the severer forms of this complaint, attended with considerable abrasion and ulceration, the diluted tincture may be used with great advantage.

Its curative powers are far greater than the nitrate of silver—which, in our hands, often seemed to exasperate the complaint—or any other remedy with which we are acquainted.—*Charleston Medical Journal and Review.*

Law of Cholera.—In our number for November, 1853, p. 189, we noticed a very important law in reference to the influence of the altitude of places on the mortality of this disease, demonstrated by Mr. Farr, in his reports on cholera in 1849. This law, which was established from data, afforded by observations in the London Basin, may be thus expressed: The increments of mortality in individual districts of a given spot, bear a certain constant relation to the order of the altitude of these districts. The experience of the past year, as shown by the report of the Register-General of England, confirms the truth of this law. Since the first calculations of Mr. Farr, Dr. Duncan, of Liverpool, has, at

the request of the former gentleman, examined the influence of the elevation of soil on the increments of mortality from cholera in that city, and confirms Mr. Farr's law so far as to show that "when the districts of approximating elevations are grouped together, and the groups so formed contrasted, the results distinctly point to a relation between the elevation of the soil and the mortality from cholera." More general, though far less exact (mathematically speaking), observation fully confirms the truth of Mr. Farr's law. In whatever part of the globe the history of the cholera there ranging is investigated, it will be found as the rule that the disease affects most fatally the low lying seaports and deltas of rivers, sparing the high grounds, even round river sources. In India, we know it began in the delta of the Ganges, ravaged all low-lying places; while sepoy lines, placed from sixty to a hundred feet above the general level of the country, had scarcely any cases, excepting such as occurred in persons on guard at the different outposts. The higher classes of natives and Europeans generally inhabiting the better raised and more airy parts of the towns suffered proportionably less than the lower ranks, and indeed the general result was such as to lead Mr. Jameson, in his report of the Bengal cholera, in 1817–'19, to say that "there is abundant proof that in high, dry, and generally salubrious spots, it was both less frequent in its appearance, and less general and fatal in its attacks than in those that were low and manifestly unwholesome." In illustration of the law (established at any rate for the great "London Basin") that *the mortality from cholera is in the reverse ratio of the elevation*, we may remark, that if the districts of London are classified according to their elevation above the level of the Thames, in those whose elevation is not on an average twenty feet above its water line, it will be found that "on the bottom of the London Basin the mortality was at the average rate of 102 in 10,000; while in a district, 100 feet high, the mortality was 17 in 10,000; and in another (Hampstead), of an altitude of 350 feet, it was 8, or, deducting a stranger infected at Wandsworth, but who died there, 7 in 10,000." Now, if the mortality from cholera, according to the data here involved, and as occurring in relation to the elevation and mortality of other groups of districts included between those of less than 20 and above 350 feet of altitude be closely examined, the relation between elevation and death will be expressed as in the following table, on the one hand, as the facts actually occurred, and, on the other, as they should occur according to a series calculated from an equation worked out by Mr. Farr in his cholera report:

Elevation of districts in feet above high-water.	Deaths in 10,000. Mortality observed.	Calculated series.
20 feet	102	$\frac{102}{1}$ = 102
20— 40	65	$\frac{102}{2}$ = 51
40— 60	34	$\frac{102}{3}$ = 34
60— 80	27	$\frac{102}{4}$ = 26
80—100	22	$\frac{102}{5}$ = 20
100—120	17	$\frac{102}{6}$ = 17
340—360	7	$\frac{102}{18}$ = 6

It was found by Mr. Farr, on comparing the numbers of his series with the mean mortality observed in districts of eight different elevations, that the only considerable discrepancy was at the mean elevation (20—40) assumed to be thirty feet. The relation thus indicated being so important, it was thought proper by its discoverer to submit the principle to another test—viz: to compare the elevation and mortality from cholera of each *sub-district*, and this comparison, though it made the mortality on the lowest level less, and became deranged somewhat by the deaths in hospitals and workhouses, entirely confirmed the announced law. (*Report on Cholera*, p. lxvii.) Whilst the *inverse ratio* is, we think, generally amply sustained, it yet suffers, it must be confessed, considerable perturbation; so much so, in some cases, as to have led to but little appreciation of its value. "Instances of this kind," remarks Dr. Baly (College of Phys. Report, 18), "which are found to be very numerous, when the relation between the mortality from cholera and the elevation of the surface is examined in the cases of the sub-districts of the metropolis, go far to prove that, even in London, the connection between lowness of level and the prevalence of cholera, depends, at least, in great part on the character of the inhabitants and their dwellings in the lower districts, and on the foulness, as distinguished from mere dampness of the atmosphere in their localities." Dr. Duncan found also in Liverpool, that taking the districts singly, where the difference of elevation is only two or three feet, the law was not carried out, *being apparently overpowered by disturbing elements.* Notwithstanding all this, and much more which might be adduced if our space permitted, we accord in the opinion that, in considering the law thus announced, it is necessary to view it in connection with certain circumstances impeding its operation, and producing some deviation from strict mathematical accuracy, and that, such being yielded, as should be done in all complicated questions of hygiene, we shall find "that this inverse ratio is maintained as accurately as is requisite for the theory."—*Medical News and Library.*

On the Gastric Juice, and its office in Digestion. By John C. Dalton, Jr., New York.—Though the gastric juice has been more fully and perhaps more successfully studied than any other of the digestive fluids, there are still some contradictory statements with regard to it, even among authors of the first eminence. Since the admirable observations of Dr. Beaumont on the person of Alexis St. Martin, the secretion has been examined, on the lower animals, by Blondlot, Schwann, Wasmann, Bernard, Lehmann, and others, whose researches have, in most essential points, confirmed those of the American observer. During the past year, I have studied the gastric juice, at various times, by means of fistula, artificially established in the stomach of the dog, after the method of Blondlot and Bernard. The secretion was almost always obtained by feeding the animal with raw or cooked meat, after a twelve hours' fast, and collecting and filtering the fluid that ran from the fistula during the first half hour afterward. The statements of Dr. Beaumont with regard to the intermittent character of the secretion were always found to be correct. The stomach, in the intervals of digestion, contains only a colorless mucus, usually alkaline in reaction, though sometimes neutral. The acid fluid begins to run by drops in about five minutes after the introduction of food, and in ten to fifteen minutes it flows freely—occasionally in a small stream—from the orifice of the fistula. It then runs so fast that four or five ounces can be collected from a medium-sized dog in the course of half an hour. During the first five minutes of its flow it is sometimes colorless, but afterward it has a faint amber tinge, resembling that of pale urine or the serum of the blood.

A little confusion of ideas seems to have existed in the minds of some observers with regard to the best method of obtaining gastric juice in a state of purity. Several have thought this could be best accomplished by irritating the gastric mucous membrane with substances not liable to be attacked by the secretion; as, for example, glass rods, metallic sounds, &c. Dr. Beaumont appears to have sometimes succeeded in obtaining a tolerably large quantity of fluid by this means. I have myself, however, never been able to obtain a sufficient quantity of the secretion in the dog by any other means than the introduction of food. The stomach will often refuse to secrete a single drop of acid liquor, though irritated almost constantly for a quarter of an hour by a metallic catheter. Other observers, also, subsequent to Dr. Beaumont, are all agreed that only a very small quantity can usually be collected by such means; and yet they continue to recommend and employ the method, under an idea that the gastric juice so obtained will be "purer" than that procured in any other way. A moment's consideration, however, will show that the fluid which is secreted under the influence of so artificial and unnatural a stimulus can-

not be at all relied on as representing the real gastric juice; and that the only proper method of obtaining this is to present to the stomach its natural stimulus, viz: the food which its secretion is intended to digest. The mistake, however, has been frequently made, and will undoubtedly account for some incorrect statements with regard to the specific gravity of the gastric juice, its non-coagulability by heat, &c. Frerichs, for example, in *Wagner's Encyclopædia of Physiology* (Art. *Digestion*), directs that, in order to obtain a "pure" gastric juice, the animals in whom gastric fistulæ have been established "should be fed, while fasting, with *indigestible substances*, *pebble-stones*, *pepper-corns*, &c., and the fluid from the stomach then examined." A singular attempt, certainly, to excite a "normal" secretion by means of substances which are altogether foreign and unnatural to it, and with which it has no physiological relation. The truth is, these authors make a pure assumption when they regard the fluid so collected as more "normal" than that obtained by other means. They do not seem, either to attach sufficient importance to the fact that these irritants can at best produce only a very scanty supply of the secretion. Frerichs himself says he has only been able to obtain in this way from forty-five drops to two drachms and a quarter of "pure" gastric juice. This is not surprising, since he employed the method least adapted to excite its secretion. The secretion of true gastric juice can, in fact, be excited only by food, and by those particular kinds of food which are to be digested by it. Loaf-sugar, given to the dog, will be dissolved and disappear altogether from the stomach, as I have repeatedly found, without causing any appreciable amount of secretion. The same thing may be said of starch paste, when given alone. I have even seen tough and indigestible pieces of tendon, introduced through the fistula, expelled again spontaneously, one after the other, without causing the flow of a single drop of acid fluid; while cooked meat, introduced in the same way, produced immediately a free secretion. It is evident, then, that to procure normal gastric juice, *i. e.* the fluid normally secreted during the process of digestion, we must make use of its natural stimulants; and we cannot hope to obtain it in any other way.

There are only two possible sources of impurity for the gastric juice taken from the stomach after the introduction of ordinary food. One is an admixture of saliva. This, however, is generally regarded as of little importance, and, at any rate, it is not to be avoided by any of the methods proposed as substitutes. Saliva is even liable to be swallowed in the intervals of digestion, when no food whatever has been taken. The other source of impurity, and that which has been thought more important, is the danger that the fluid taken from the stomach, even at the commencement of digestion, may have already dissolved some of the elements of

the food, and thus present to the experimenter a complicated solution, instead of pure gastric juice. This, however, is not the case. If the animal be fed upon firm pieces of fresh meat, containing little blood—particularly if the fluids have been previously coagulated by a short boiling—a sufficient length of time elapses before solution begins for the experimenter to obtain an abundant supply of the unaltered secretion. The two principal products of digestion, albumen and albuminose, may be readily detected if present; and experiment shows that they do not exist in the fluid obtained by this means. There is, then, really no objection to the employment of this method; which is, indeed, the only reasonable and physiological one.

Gastric juice, obtained as above, has the following properties: Its specific gravity is 1010; its acid reaction is always decided; its viscidity is so slight as to be hardly noticeable; it becomes turbid by boiling, and by an excess of alcohol; it is not troubled by nitric acid, nor by ferrocyanide of potassium.

Its *organic ingredient*, concerning which so much has been said is undoubtedly the most important of its constituents. Though it has never been separated in a perfectly pure state, its presence is easily demonstrable. It may be the altered mucus of the stomach, as Bernard supposes, or a mixture of various organic matters, as believed by others; but it is certainly a peculiar substance, found nowhere else in the body, and essential to the digestive properties of the gastric juice. There seems no good reason why we should not retain for it the name of *Pepsin*, first given to it by Schwann; always recollecting, for the present, that this name does not indicate its chemical character or origin, but only its physiological destination. This pepsin resembles albumen, as stated by Robin and Verdeil, in being coagulated by heat. Lehmann and Frerichs are certainly in error when they assert the contrary; an error into which they have perhaps been led by regarding as true gastric juice an unnatural fluid, obtained by the unnatural means alluded to above. The coagulum thrown down on boiling fresh gastric juice is not albumen, as Lehmann intimates, since it is not precipitated by either nitric acid or ferrocyanide of potassium; and after gastric juice has been boiled and filtered it has lost its digestive power, though its acid reaction remains unaltered.

With regard to the *mode of action* of gastric juice, it may be confidently stated that it acts only on the albuminoid substances, and articles of food containing them—as meat, eggs, bread, nutritious vegetables, &c. It is also true that these matters are mostly converted by the action of gastric juice into albuminose, *i. e.* a substance which is not coagulable by heat, or by nitric acid, but which is best precipitated by an excess of alcohol. If the different articles of food be digested in fresh gastric juice in test tubes,

at a temperature of 100° Fahrenheit, it will be found that the digestible ingredients of bread are all taken up under the form of albuminose. If cheese be treated in the same way, its casein is altogether converted into albuminose, and dissolved, while its oleaginous matters are set free, and collect as a yellow layer on the surface of the solution. A very considerable portion of raw white of egg, however, dissolves in the gastric juice directly as albumen, and remains coagulable by heat. Soft boiled white of egg and raw meat are principally converted into albuminose, but at the same time a small proportion of albumen is also taken up unchanged.

The gastric juice *actually dissolves the articles of food.* This has been, through some mistake, recently denied by one observer, so far as regards muscular tissue; the fibres being supposed to be simply swollen and partly disintegrated, but not actually dissolved in the stomach. The contrary, however, can readily be seen, by digesting raw meat, cut into small pieces, with fresh gastric juice at 100° Fahrenheit for eight or nine hours. The filtered fluid, which is perfectly clear, but rather more deeply colored than at first, has increased in specific gravity from 1010 to 1020, or 1022; and, by the addition of six or eight times its volume of alcohol, becomes excessively turbid and opaque, like thin milk. It is true that all parts of the muscular tissue do not dissolve; and there remains constantly, at the bottom of the test tube in which the digestion has been performed, a pulverulent, brownish sediment, consisting of the undigested portions of the meat. This is the case, also, with boiled white of egg. While the digestion is going on, it is easy to see that as the general mass of the fragment becomes transparent and gradually liquifies, there remain, scattered through its substance, numerous minute opaque spots which are not acted on; and which, when set free by the solution of the rest produce an opalescence in the fluid, and collect slowly as a sediment at the bottom. Whether these refractory portions are afterwards dissolved by the intestinal fluids, or whether they are altogether indigestible, and destined to be discharged with the excrements, is at present uncertain.

The *quantity of albuminoid matter dissolved by the gastric juice* has been variously stated. The method which I have adopted to determine this point is the following: it was first ascertained that the fresh lean meat of the bullock's heart loses by desiccation 78 per cent, of its weight; 300 grains of such meat, cut into small pieces, were then digested for ten hours in ℥iss of gastric juice at 100° Fahrenheit, the mixture being gently agitated as often as every hour. The meat remaining undissolved was then collected on a previously weighed filter and evaporated to dryness. When perfectly dry, it weighed 55 grains. This represented, allowing for the loss by evaporation, 250 grains of the meat in its

natural moist condition; 50 grains of meat were then dissolved by ʒiss of gastric juice, or a little over 30 grains per ʒj.

From these data, we can form some idea of the large quantity of gastric juice secreted during the process of digestion. One pound of raw meat is only a moderate meal for a medium-sized dog, and yet, to dissolve this quantity (supposing the while of it to be digested), no less than sixteen pints of gastric juice will be necessary. This quantity, or any approximation to it, would be altogether incredible if we did not recollect that the gastric juice, as soon as it has dissolved its quota of food *is immediately reabsorbed*, and enters the circulation with the alimentary substances which it holds in solution; so that a very large quantity of the secretion may be poured out during the digestion of a meal at an expense to the blood, at any one time, of only two or three ounces of fluid. The simplest investigation shows that the gastric juice does not accumulate in the stomach in any considerable quantity, to remain there until the solution of all the food has been accomplished, but that it is gradually secreted so long as any food remains undissolved; that portion which has been already digested being disposed of by reabsorption with its solvent fluid. There is, then, during digestion, a constant circulation of gastric juice from the vessels to the stomach, and from the stomach back again to the vessels. Or perhaps it would be more correct to say that it is only the watery portions of the juice, holding sometimes in solution the digested albumen and albuminose, that perform this circulation; while its acid and organic ingredients remain very possibly in the stomach, ready to act on a new quantity of food, as that which has been already digested is withdrawn by absorption. That this is really the case, is proved by the following facts. First, if a dog be killed some hours after taking a meal, there is never more than a very small quantity of fluid found in the stomach just sufficient to penetrate and smear over the half-digested pieces of meat; and, secondly, in the living animal, gastric juice, drawn from the stomach when digestion of meat has been going on for six hours, contains little or no more organic matter in solution than that extracted fifteen to thirty minutes after the introduction of food. It has evidently been freshly secreted; and, in order to obtain gastric juice saturated with alimentary matter, it must be artificially digested with food in test tubes, where this constant absorption and renovation cannot take place.

The time necessary for the digestion of food varies apparently in different species of animals. In the dog, one pound of lean uncooked meat is completely digested, and disappears from the stomach, only in from eight to nine hours. From experiments of M. Colin, of the Veterinary School at Alfort, it appears that the process is equally long in the cat; and also, probably, in all purely carnivorous animals. Dr. Beaumont, on the contrary,

found that in Alexis St. Martin, meat and bread were digested in five, four, and three hours; and even, in some instances, in an hour, or an hour and a half. This difference is undoubtedly in part owing to the influence of mastication, which is so very imperfectly performed in the carnivora. It might be supposed that, having constant opportunity of obtaining gastric juice from the dog, and of studying its effects in artificial digestion, we might easily determine the relative digestibility of the different articles of food used by ourselves. This, however, is not the case. The readiness with which a substance dissolves in gastric juice is only one element of its digestibility in the stomach. This depends also on the readiness with which it excites the secretion, and stimulates the peristaltic movements of the organ, the ease with which it disintegrates, the amount of previous mastication, &c. For the human species, then, the digestibility of various kinds of food can be properly determined only by direct observations on the human stomach, like those of Dr. Beaumont; and it will probably be long before we shall have any others so valuable, in this respect, as his.

Amylaceous substances are not digested in the stomach. It is easy to ascertain that cooked starch, artificially digested for ten hours in gastric juice, at 100° Fahrenheit, still exhibits its characteristic reaction with iodine. Bernard also maintains that it is equally unaffected in the stomach. Some writers, however, have thought that the well-known property of saliva in converting starch into sugar, would be exerted even in the stomach during the process of ordinary digestion. Lehmann for example, states that "sugar may be detected, by the ordinary means, in the stomach of the animal (with gastric fistula) in ten to fifteen minutes after it has swallowed balls of starch, or after they have been introduced through the fistula." I am at a loss to understand the grounds of this assertion, as I have never met with similar results. Either cooked or raw starch, administered mixed with meat or introduced alone through the fistula (the animal will not eat pure starch) is easily recognizable by its reaction with iodine, ten, fifteen, and thirty minutes afterward. In forty-five minutes it is diminished in quantity, and in one hour has almost invariably disappeared; but no sugar is to be detected at any time. Outside the body, too, gastric juice entirely prevents the saccharine conversion of starch by saliva. A thin solution of boiled starch, mixed with an equal quantity of saliva, and kept at 100° Fahrenheit, is completely converted into sugar in ten or fifteen minutes; but if an equal quantity of fresh gastric juice be previously added to the mixture, there is no trace of sugar, even at the end of three hours, and the starch retains its usual properties. It must be acknowledged, therefore, that though saliva converts starch outside the body, when digested alone in test-tubes,

yet it does not have this effect, so far as we can ascertain, during the natural process of digestion in the stomach.

Cane sugar is slowly converted by gastric juice, outside the body, into grape. Ten grains of cane sugar, dissolved in half an ounce of gastric juice, and kept at 100° Fahrenheit, give traces of glucose at the end of two hours, and in three hours the quantity of glucose is considerable. It cannot be shown, however, that the gastric juice exerts this effect on sugar during ordinary digestion. If cane sugar be given to the dog while digestion of meat is going on, it disappears in from two to three hours, without any glucose being detected. There is a singular peculiarity, however, in the action of cane sugar, introduced into the stomach of the dog while empty. If half an ounce of loaf sugar be given to the animal after a twelve hours' fast, when the stomach contains no food or gastric juice, it almost invariably produces an immediate reflux of intestinal fluids (among which the bile is readily recognized by its color), and these promptly convert a part of the sugar which has been swallowed, so that in fifteen to thirty minutes the fluids extracted from the stomach contain an abundance of glucose. This, however, is only temporary. In forty-five minutes to an hour the intestinal fluids cease to be present, and the glucose at the same time disappears. Unaltered cane sugar, however, still remains and continues present for two and a half to three hours, when it gradually disappears without any subsequent production of glucose. During all this time, as has been mentioned above, no gastric juice is secreted; the reaction of the stomach remaining constantly neutral or alkaline.

The above experiments render it probable that even when cane sugar is taken with other articles of food, it is not converted into glucose in the stomach. We cannot, however, be positively sure of this, owing to a circumstance not generally known, viz: that *the presence of gastric juice interferes with Trommer's test for grape sugar.* If a drop of honey be mixed with a drachm or two of gastric juice, on adding sulphate of copper and potass, the solution takes a rich purple tinge instead of its ordinary blue color, and, on boiling, changes to yellow—but no copper is deposited. A mixture of honey and gastric juice, in equal volumes even, does not reduce the copper unless it be previously diluted with water; in that case the copper is deposited as usual. I have not been able to ascertain upon what ingredient of the gastric juice this singular property depends. It is not its free acid, since, if previously neutralized by potass, it still behaves in the same way. It is not its organic ingredient, since, if this be separated by boiling and filtering, it continues to act as before. Even the addition of several times its volume of alcohol does not altogether prevent the interference. A considerable proportion of glucose may still be recognized, notwithstanding the presence of gastric juice, by

the change of color from purple to yellow above mentioned, though there may be no precipitate; but a small proportion does not show itself in any way. One sixteenth of a drop of honey in one drachm of gastric juice produces no change of color that could be at all relied on as a test; while the same proportion of honey in water reduces the copper promptly and abundantly. We cannot, therefore, detect a moderate quantity of glucose in gastric juice by this means.

It is universally agreed that oleaginous substances are not attacked by gastric juice, but are simply set free from their union with other matters. Thus, if adipose tissue be digested artificially, the walls of the fat vesicles, with the intervening areolar tissue, are dissolved, and the oil collects as a distinct layer on the surface. The oily matter of cheese acts in the same way, as already noticed. Boiled yolk of egg is digested in a similar manner. Its albuminoid ingredients are dissolved out, while the fats collect at the top of the solution, as a mass of yellowish semi-solid granules.—*Am. Jour. of Med. Sciences.*

Case of Congenital Obstruction and imperfect closure of the Mitral Valve.—By John A. Sweet, M. D., Physician to the New York Hospital, &c. I was called on the 22nd of September, 1851, to visit a young gentleman, twenty-three years of age, in whom I found the physical sign of regurgitation through the mitral orifice of the heart, viz: a bellows murmur with the first sound of the heart, heard over the apex of the organ. The heart did not appear to be much enlarged; the apex seemed to strike in the natural position, and the percussion over the precordial region was quite as clear as is natural. The action of the heart was moderate in degree, but its rhythm was irregular. There was some complaint of palpitation, but much more of dyspnœa. The pulse was very feeble and irregular, and there was slight œdema of the feet, with signs of effusion into the cavity of the pleura.

The patient was, as I have stated, twenty-three years of age, and a book-keeper. From early childhood, his breathing had been short; but for eight or nine years past this symptom had been more prominent. For the last year it had been still more distressing, and was attended by palpitation. Still, he had been able to follow his occupation until a comparatively recent period. A few days ago, the œdema in his feet commenced. His countenance was pale, but he was not much emaciated; his urine was high-colored and scanty.

Remedies, chiefly of a diuretic character, were administered by the attending physician, Dr. Hobart, but without material benefit. The dropsical tendency increased. Hemoptysis, of a severe form,

ensued during the last week of his life, and was frequently repeated. A pulsation was noticed in the epigastrium, as if the right side of the heart was enlarged. Slight jaundice ensued, and delirium followed by coma closed the scene, without a struggle, on the 11th of October.

On *post mortem* examination, twenty-four hours after death, the right cavities of the heart, and the left auricle, were much distended with recent clots of blood; while the left ventricle appeared empty and small, like an appendage to the rest of the organ. The right side was generally enlarged by hypertrophy and dilatation, and the pulmonary artery was larger than the aorta, and nearly as thick. The left auricle was also much enlarged by hypertrophy and dilatation; and besides the soft and recent clots found in it, abundant and old fibrinous clots, partially decomposed, like those we notice in old aneurisms, existed, united to the lining membrane of the auricle by a thin, smooth, and transparent layer of lymph. The same kind of thin layer of lymph adhered to the inner membrane of the pulmonary artery. All the valves and orifices were healthy, except the mitral orifice, which was so contracted as only to admit the end of the forefinger. The structure of the valve was somewhat thickened, but smooth, without ossification, vegetations, or other evidences of inflammation. At each extremity of the valve, there was a seam, or slight depression, each half an inch in length, showing where the opening of the valve should have been continued. The left ventricle was quite natural, except that its walls were rather thinner than usual; some fluid existed in the pericardium.

About two pints of reddish, turbid serum, existed in each pleural sac, with a slight effusion of lymph. The lower lobes of both lungs were not much compressed, but were solidified and of a very dark red color, and giving out on pressure an abundance of dark, viscid blood. No distinct matter of pulmonary apoplexy existed; but both the lower lobes were, I think, passing into this condition.

There was slight cirrhosis of the liver. The other abdominal organs presented nothing abnormal; there was but little venous congestion.—*N. Y. Med. Times.*

Case of Rupture of the Uterus.—*Recovery.*—By J. S. Monell, M. D., of New York. I was called on Tuesday, July 15th, about 2 o'clock P. M., to see a patient, aged thirty-five years, in labor with her fifth child, who had been, since 1 o'clock of the night previous, under the care of a midwife. The membranes had ruptured about an hour before my visit; and upon examination, a hand was found protruding from the vulva, and above this, the fœtus presenting by the face. The pains were excessively severe.

Circumstances, over which I had no control, delayed the adoption of the only means of relief, until between 4 and 5 o'clock. By this time the pains had ceased entirely, and the aspect of the patient was alarming; the countenance was palid, the lips blue, pulse quick and feeble, with abdominal tenderness. Through the abdominal parietes, the contour of the child was readily distintinguishable, especially in the right hypochondrium. Upon vaginal examination, the head was found to have receded.

At this time the patient was seen by several medical gentlemen, who all agreed as to the correctness of the diagnosis of the case as one of ruptured uterus; and immediate delivery was resolved on as furnishing the only feasible hope of saving life.

Version was effected without difficulty, by Dr. T. F. Cook, who found the laceration in the right side of the uterus, the foot having passed through the rent into the peritoneal cavity. At the time of delivery, the case appeared nearly hopeless; the countenance was pale and haggard, the pulse rapid and thready; frequent vomiting, and tenderness over the abdomen, indicated the probable existence of peritonitis.

Nevertheless, soon after delivery, and by the active administration of stimulants, the patient began to rally, and in about two hours, the use of Majendie's solution of morphine in fifteen drop doses, was commenced, to be continued every two hours until sleep should ensue.

The patient slept well during the night, and was found on Wednesday morning, with a pale and anxious countenance, tongue furred white, pulse 100, hard and quick, skin hot and dry, tenderness and tumefaction of the abdomen. She had passed no urine, and the lochia were suppressed. Motion, and even respiration produced abdominal distress. She was directed to take every three hours, a tablespoonful of a mixture of spts. minderer., spts. nitr., ipecac., and Majendie's solution, with hot fomentations to the abdomen.

In the evening, no special mitigation of symptoms was apparent; but the urine was voided after applications of flannel cloths wrung out in hot water, had been freely used. To take Dover's powder, gr. xij., ext. hyoscy. grs. i., calomel, grs. ij., at bed time, and to continue fomentations to the abdomen.

Thursday, 17th. No improvement. Lochia but small in amount, pulse 104, incompressible, countenance pale and anxious, respiration sighing, tongue heavily coated with a thick, white fur; patient complains of feeling faint, and also of great tenderness over the seat of laceration. Stimulants were given internally, and two leeches applied over the seat of pain, which produced marked beneficial effect. Fomentations of hops and chamomile flowers were used; and the lochial discharge became more profuse, though quite fœtid. In the evening, the pulse was reduced to 90,

the countenance more natural, and the tenderness over the uterus was diminished. She had slept three hours, and was much refreshed. Calomel, gr. ij., with pulv. Doveri, gr. x., to be taken at bed-time.

Friday, 18th. Much improved. Had slept well. The pulse was 88, the skin more natural, and less abdominal tenderness. The fomentations were discontinued, and some light nourishment allowed, the patient having taken for three days cold water or ice only. Anodyne at night, as yesterday.

Saturday, 19th. No special change. Calomel, grs. x. with pulv. Doveri, grs. ix., at night, with the intention of following with a cathartic in the morning, to relieve the bowels, which had not been moved since the day of confinement.

Sunday, 20th. The patient passed a restless night. The abdominal tenderness had increased, and the intestines appeared to be loaded with fecal matter. To relieve this, pulv. purgans was given in half-drachm doses every three hours, until free catharsis was produced, by which she was much relieved.

Convalescence seemed now to be established, and she progressed steadily, though slowly. From this time, to August 1st, she was kept under moderate medication by laxatives and diuretics, with careful attention to the lochia and the bandage. At this time she began to sit up, and though strictly enjoined to avoid exertion, she could not be restrained after August 15th, from her usual duties. Since that time, I have visited her occasionally; and at the present time (Sept. 18th), she declares herself as well as ever. —*N. Y. Med. Times.*

Topical Uses of Iodine.—The value of Iodine as a counter-irritant is year by year becoming more generally appreciated, and is yet much less so than it deserves. The iodine solution will probably, before long, entirely supersede mustard plasters, being at once more efficient, and much less disagreeable in its employment. The following notes on its applications will, perhaps, not be useless; they are the results of very extended observations in the hospitals generally, but more especially in those devoted to the treatment of diseases of the chest:—

1st. In the pleuritic stitches, or aching pains in the chest, so commonly recurrent in the course of phthisis, the iodine paint, applied over the affected spot, usually affords, without any expense to the vital powers, much more relief than either leeches, sinapisms or blisters. It may be used in almost all conditions of the system with perfect safety.

2nd. In cases of aphonia or hoarseness, depending on inflammatory thickening of the parts concerned in the production of

voice, great benefit may be derived from painting the iodine over the front of the throat externally.

3rd. If the mucous lining of the fauces, etc., be thickened and congested, the solution may, without risk, be freely applied to the part itself.

4th. In the treatment of chronic enlargement of the tonsil, the application of iodine to the gland itself will sometimes effect a cure, but is much less generally efficient than constitutional treatment.

5th. In cases of chronic pleuritic effusion, or of consolidation of the lung, the solution should be painted over a large extent of the diseased side, and is of great service when the period for blistering or leeching has passed.

6th. Applied extensively over the belly, iodine is a useful counter irritant in the incipient stages of strumous peritonitis.

7th. In strumous ophthalmia, the application of the pharmacopœial tincture to the skin of the lids is often effectual in relieving intolerance of light; much benefit may also be derived from like practice in cases of granular lids. In both instances, frequent repetition is necessary.

8th. In all forms of periostitis, whether syphilitic, strumous, or the result of injury, iodine paint is invaluable.

9th. It is needless, perhaps, to mention the employment of iodine as a local application to bronchocele, to inflamed joints, and to the enlargements of the absorbent glands; with regard to the latter, a point is worthy of being borne in mind, to which Dr. Budd was, we believe, the first to direct attention, viz: the propriety of applying it to the skin beyond, and not over the affected gland, so as to allow of its being absorbed and taken through the gland in the course of the lymphatic circulation.

10th. Injections of iodine into the cavities of abscesses, glandular or otherwise, appear most frequently to produce good results, and to be unattended, except in very exceptional instances, by any risk. The theory of their use is, that the adhesive and not suppurative inflammations, as, for instance, in the radical cure of hydrocele.

11th. In cases of contracted cicatrices after burns, in which treatment by extension is adopted the application of iodine is of advantage in causing the absorption or softening down of the indurated structure. Some cases illustrative of this have recently been under care in the Middlesex Hospital. Care must be exercised, or ulceration may be caused.

12th. In cases in which the patient cannot be got to swallow medicine, as now and then happens in phagedæma of the throat, the specific influence of iodine may be induced by its endermic application, the best method being to paint over large surfaces of the skin the pharmacopœical tincture, choosing a different part each time.

The reason why, as a counter-irritant in all forms of chronic inflammation, iodine appears so superior to other applications, is doubtless to be found in the fact that it is capable of absorption, and may thus act beneficially in two distinct methods.

We have enumerated above some of the chief uses to which the iodine solution is daily put in the practice of the London Hospitals, but do not profess to have mentioned all. These are, however, enough, we think, to prove its right to a place on the dispensing table of every Medical practitioner.—*Med. Times and Gazette.*

Death from Laudanum in three-quarters of an hour.—The following account of a case, which occurred in 1849, and was then reported, verbally only, to the Society, has been furnished, at the request of the Secretary, by Dr. G. H. Lyman. Mrs. ——; aged fifty-two years. Intemperate; has been drinking more or less for three weeks. An ounce of laudanum was taken by the patient, with suicidal intent. Dr. L. saw her in fifteen minutes. She said she had taken the laudanum for diarrhœa; was able to walk about with little or no assistance; begged to be allowed to lie down.

Nothing peculiar in pulse, as to force or frequency; pupils natural; external temperature natural; no evidence of sopor. Dr. L. gave two emetics of sulph. zinc.; could get no stomach pump. No effect produced by emetics.

In thirty-five minutes after taking the laudanum, she began very suddenly to lose her pulse and muscular power; slight spasms were observed; the lips became livid; there was a spasmodic dropping of the lower jaw; the extremities were cold, and, in ten minutes, she was unmistakably dead. The moment her pulse began to fail, frictions and sinapisms were resorted to, and preparation was made for the douche and artificial respiration; but she died before they could be instituted.

She had taken a hearty breakfast about three hours before. Her husband says her habit of drinking was induced by taking great quantities of tinctures (that of opium among others), after an attack of traumatic tetanus, ten years previous to her death.

Three quarters of an hour only elapsed from the ingestion of the laudanum to her death. Beck reports a case fatal in two hours. Christison says, seven to twelve hours is the average duration.

A case is reported in the *Boston Medical and Surgical Journal*, vol. xi, p. 285, fatal in two and a half hours. Christison also remarks that intoxication retards the action of opium.—*American Journal of Medical Sciences.*

A Precocious Infant.—Dr. Blake mentioned the following facts: May 11, attended Mrs. H. in her fourth confinement, after a tedious, though not severe labor; the child, a female, unusually vigorous, and weighing, at birth, eleven and a half pounds. On the third day, subsequent to visiting his patient, the nurse asked, "Doctor, do you see our baby laugh?" Incredulous, he crossed the room—but, to his surprise, the infant return d an answering smile to the caresses of the nurse. With a look of intelligence, it turned to the father who stood over it, as he patted its cheeks, and as quickly turned its eyes on Dr. B., when he did the same; and when he stepped aside, its gaze followed him (attracted, he supposes, by his spectacles) until, being out of view, it cried aloud; returning to its side, a smile of pleasure again greeted him, and the cry was once more repeated when he ceased to notice the little one.

Here was unmistakable evidence of pleasurable and sad emotions, and showing the distinct recognition of sensible objects, by an infant as yet scarce sixty hours old. That it was no accidental circumstance, the like manifestations, which were daily noticed afterwards, sufficiently prove.—*Am Jour. of Med. Sciences.*

Influence of Mind on Disease.—It would seem as if the study of certain diseases sometimes favored their real or imaginary development. Mæunnec does of phthisis, and Corvisart of disease of the heart. When the celebrated Professor Frank was preparing his lectures at Paris, on disease of the heart, his own heart became so disturbed that he was obliged to rest for awhile. Rumor says that no less than five of the professors in one of the medical colleges have unjustly suspected their hearts. Medical students, exhausted by a winter session, are apt to be special subjects of real or im ginary irregularity of the heart. A young friend who attended the lectures last winter, on diseases of the chest, felt an unusual knocking of his heart after ascending the long college stairs, and required several examinations to satisfy him that there was no danger.—*N. Y. Med. Gaz.*

Prof. Trousseau recommends the extract of belladonna, in doses of one-fifth of a grain, three times a day, as a remedy par excellence for habitual constipation. With great deference to this distinguished savan of France, we would suggest that his remedy will be far more successful if he will add thereto 3 grs. of P. Rhei and 1 gr. of P. Ipecac; these being the constituents of Prof. Chapman's "Peristaltic Persuaders." The latter will succeed when the belladonna fails.—*N. Y. Med Gaz.*

Carbuncles and Boils.—The Dublin Medical Press contains some proper remarks in regard to the efficacy of lead plasters—the common lead or litharge plaster spread upon soft white leather—in these painful and troublesome affections, which have prevailed in some places epidemically during the past year or two. After poultices and fomentations in the active stage of the inflammation, it is advised to apply a lead plaster so as to cover the tumor and extend a little beyond it upon the sound skin. The effect is to stimulate the exhalent vessels to an increased discharge of perspirable matter, allay irritation and pain, and hasten absorption and suppuration. When the latter exists, an opening in the plaster should be left to facilitate the discharge of matter, and the plaster should be changed only as may be necessary for cleanliness. In this account nothing is said of the more stimulating applications, iodine, alcohol, camphor, &c., to facilitate the resolution of the tumor. The two plans might be combined with great promise of increased advantage.—*Memphis Med. Rec.*

Olea Europœa.—Mr. Maltas, in the Pharmaceutical Journal says, he has found *Olive leaves* more effectual in intermittent fever than the quinine. He tried it in the island of Mytilene, at a time when the disease was very prevalent. He boiled two handfuls of the leaves in a quart of water, until evaporation had reduced it to a pint; and then gave a wine-glassful every three or four hours.